# LEADERSHIP POTENTIAL AS A FACTOR IN ASSESSING AND TRAINING MARINE CORPS JUNIOR OFFICERS

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# LEADERSHIP POTENTIAL

# AS A FACTOR IN ACCESSION AND TRAINING

# MARINE CORPS JUNIOR OFFICERS

A Thesis

Presented in Partial Fulfillment of the Requirements

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By

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## PREFACE

Effective assessment of potential leadership ability is dependent on the validity of the measuring techniques employed and the criterion to which the measurements are related. Factors of leadership have so far appeared rather intangible in nature although research is continually attempting to isolate the principal activities involved. Numerous studies have been made of leadership and in search of adequate measures for determining potential leadership ability. Through such studies progress may eventually occur. With this in mind, and a personal interest in the validity of leadership evaluation methods employed by the Marine Corps during World War II, I have prepared this follow-up study based upon leadership evaluation data recorded on students during officer basic training and later fitness report ratings given those same individuals after they were commissioned. Certain weaknesses in the assessment procedures employed are quite apparent and the criterion limitations acknowledged. When related to other studies however, the findings contained herein may contribute in some small way to the improvement of assessment methods in the area considered.

I would like to acknowledge my indebtedness to the Commanding Officer and staff of The Basic School, Marine Corps Schools, Quantico, Virginia for the assistance furnished in locating and recording student leadership evaluation data; to the personnel in the Procedures Analysis Office, Office of the Director of Personnel, Headquarters, U. S. Marine



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Corps, Washington, D. C. for assistance in recording fitness report data, the statistical computations, and preparation of charted material.

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Columbus, Ohio
May, 1951.

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# CHAPTER I

# INTRODUCTION

## Statement of the Problem

General.--A "national emergency" poses abnormal problems of leadership in all phases and functions of government. Rather severe adjustment in top leadership often follows the transition from peace to war as capable leaders are sought to meet the new situations facing the country. Civilian pursuits are temporarily exchanged for service in government and the military establishment. John Q. Citizen is called upon to make radical changes from his normal routine as he assumes his niche in the big machine. When viewed in the light of the rapid expansion required of the armed forces and the environment differential between the civilian and military areas of functioning the problem of developing military leadership becomes rather unique.

Induction of officer personnel at the bottom of the commissioned ladder is a major concern for the military establishment. During the early stages of a war the supply of manpower generally exceeds the demand, and selection of good material is relatively easy. As time and the war effort progress the bottom of the manpower barrel is approached and the situation becomes one in which the demand commences to exceed the supply.

Success in combat demands that the process for assessing and training junior officers as troop leaders be the best available. Officer training is expensive in time, money, and personnel; economy dictates that it be made available only to candidates who possess potential leadership ability. The limitations of any personnel selection procedure preclude 100% effectiveness and for this reason it seems desirable that the actual period of officer training should also provide some means of leadership evaluation to validly salvage borderline cases and eliminate unsuccessful candidates. Three major elements, therefore, appear pertinent to the process of procuring and training officer personnel for military leadership in the lower echelons. First, reasonably accurate discrimination between qualified and unqualified candidates must be provided in the initial selection procedure. Second, provision should be made for adequate leadership evaluation and training, concurrent with academic instruction so that each candidate may be given assistance in developing his potential leadership ability. Third, the procedures for evaluating leadership ability must possess sufficient validity to provide an economical predictor for selecting out unsuccessful candidates. Major emphasis in this study will be placed on the latter two elements with the presumption that the initial selection procedures, which will be discussed briefly, do provide a selected group of candidates.

Purpose of the Study.--The primary purpose of this study is to examine the procedure for training and assessing the potential leader-

ship ability of Marine Corps junior officers who were undergoing basic instruction at the Marine Corps Schools, Quantico, Virginia during World War II. An effort will be made to determine whether any relation exists between actual performance on the job at a specified time following graduation and the relative leadership ability predicted by the evaluating procedure. In the event a relation of sufficient validity is found to exist, comments and suggestions will be offered for further improvement of the procedures. As a background to the study, the author proposes to review current thinking and certain personal opinions regarding the leadership problem and methods and limitations of measuring leadership.

Content in Brief.--The following brief of what the reader may expect to find in the succeeding chapters is offered for reasons of clarity and economy of time in the event quick reference to pertinent areas of the study is desired. The remainder of Chapter I discusses the principal sources from which research data was obtained, followed by a general coverage of the mission, organization, and training problems of the particular Marine Corps School offering basic instruction for junior officers. The chapter concludes by establishing the status of the candidates accepted for basic training as that of a select group.

Chapter II attempts to analyze some of the factors that seem to be associated with the leadership problem in order to determine how they may affect a leadership assessment and training program. Sever-

al currently recognized methods of assessing leadership ability as used in other personnel areas are examined with a view toward recognizing the many varieties of techniques which can be applied to the measure of leadership potential.

The leadership training and evaluation procedures employed during World War II at the Marine Corps Schools are covered in Chapter III. Acknowledgement is given to certain limitations that were inherent in the system as established.

Chapter IV is the nucleous of the entire thesis. It sets out the factual data statistically computed and charted for interpreting, in some degree, the validity of the leadership training and evaluation procedures subjected to examination. The criterion employed is discussed from the standpoint of availability, validity, and general accuracy. Methods and procedures used in collecting, assembling, and computing the data are described.

Chapter V concludes the study with discussion and suggestions pertinent to possible improvement in the leadership training and evaluation program. The suggestions are based on the discussions of this study and the relationships determined by analysis of the statistical evidence.

Research Areas.--The author personally contacted the Marine Corps Schools and Headquarters, United States Marine Corps, to obtain raw data for the statistical analysis computed for this study. During a three day visit to the Basic School, Educational Center, Marine Corps

Schools, Quantico, Virginia, student records for officer training classes in residence during the period August 1945 to February 1947 were examined. This period was selected for two major reasons. First, the evaluating procedures in effect at that time were designed to attempt a more quantitative measure of potential leadership ability and represented a major adjustment from the previous techniques used in evaluating recorded observations. Second, during the greater part of this period the author had direct contact with the evaluating procedures in question by virtue of duty assignment.

The particular class records examined at The Basic School were those of the 16th and 17th Platoon Commanders Classes and the 1st, 2nd, and 3rd Basic Classes. The name difference, as noted, has no bearing on the research data as the change was a result of renaming the officers basic training school at the end of World War II. The enrollment in these classes included candidates from the enlisted ranks, graduates of the U. S. Naval Academy, and a representation from civilian colleges resulting in a good cross section from most of the usual procurement sources. Data obtained from the student record cards included the academic average and the leadership evaluation score for each student. The possibility of certain academic subject grades being sensitive to and indicative of factors associated with leadership influenced the author to record individual grades for the Troop Training Course and the Staff Functioning Course for correlation with the criterion. Grades for the Troop Training Course were available

commencing with the 1st Basic Class and those for Staff Functioning began with the 2nd Basic Class. Wherever the General Classification Test score was found, it too was recorded.

Sampling of cases proceeded on the basis of recording the necessary data on the upper, middle, and lower twenty-five cases from each class, ranked in accordance with leadership evaluation scores. In the event classes numbered less than seventy-five students, information was recorded on the entire class. Academic and leadership data were recorded on 302 cases, available in the following numbers from each class:

| | |
|---|---|
| 16th Platoon Commanders Class | 84 |
| 17th Platoon Commanders Class | 49 |
| 1st Basic Class | 44 |
| 2nd Basic Class | 50 |
| 3rd Basic Class | 75 |
| Total | 302 |

Fitness report records filed in Headquarters, U. S. Marine Corps provided the source from which data for computing criterion scores were obtained. Complete discussion of the criterion and the methods used in computing criterion scores is reserved for Chapter IV. A search of fitness report records produced criterion data on 189 of the 302 cases for which original academic records were available. In view of the variation in class size and the impossibility of obtaining equal numbers of cases from each class it was deemed logical to select

cases on a percentage basis when determining the final groupings for analysis purposes. The maximum percentage figure that could be employed was dependent on the number of cases initially selected in each of the upper, middle, and lower groups of the largest class. In the final analysis all of the cases within the upper, middle, and lower 15% of each class for which criterion data were available were selected to make up the three major groups involved in the study. The table below indicates the number of cases by class within each zone on which statistical data have been computed.

| Class | Upper 15% | Middle 15% | Lower 15% |
|---|---|---|---|
| 16th PCC | 9 | 3 | 3 |
| 17th PCC | 5 | 5 | 2 |
| 1st Basic | 6 | 7 | 6 |
| 2nd Basic | 6 | 7 | 5 |
| 3rd Basic | 18 | 19 | 13 |
| Total | 44 | 41 | 29 |

## The Officer Training Program

General.--The junior officer training program in the United States Marine Corps revolves about the functioning of The Basic School, Educational Center, Marine Corps Schools in both peace and war. The Basic School, or an especially established phase thereof, provides the final course of basic training for each Marine Corps junior officer or officer candidate. During World War II the name of the basic train-

ing program varied from time to time in order to adjust to certain changing conditions. This had very little effect on the actual curriculum as it was principally an adjustment in the internal organization of the school to meet existing situations of procurement and policy. The program was initially organized in two phases, an Officer Candidates School, and a Reserve Officers School. Under this arrangement students were not commissioned until they had successfully completed the Officer Candidates School. They attended the Reserve Officers School as Second Lieutenants in the Marine Corps Reserve. At a later date it became necessary to reduce the period of training to sixteen weeks and the two phases were combined under the name Platoon Commanders School which provided for basic training of officers and officer candidates on the same basis. At the end of World War II the officer training program resumed normal peacetime activity. The school again became The Basic School and over a period of several classes the course was once more extended to the normal length of nine months.

Current planning in Marine Corps Headquarters to meet the present expansion once again calls for reducing the course of training and placing it on a five month basis. The program will be referred to as the Special Basic Course. During the first three months the student will be in the status of an officer candidate. Successful completion of that period will be followed by two months instruction as a commission-

ed officer.[1] Experience in the basic training program for junior officers in the recent war seems to be dictating a similar pattern for the present emergency.

The Basic School.--A brief discussion of The Basic School mission and general organization for instruction, and the principal sources from which candidates for training are procured should assist the reader in evaluating the effectiveness of the leadership assessment and training procedures to be discussed in Chapters III and IV of the thesis. For purposes of this study it is essential that such a discussion of The Basic School be confined to the factors as they existed during the specific period for which statistical data were collected, namely, August 1945 to February 1947. Progress has, of course, brought about certain minor modifications since the period indicated. It appears from an examination of the present program, however, that within reasonable assumptions, similar conditions and objectives continue to exist.

The Basic School is a part of the Marine Corps Schools organization at Quantico, Virginia under the command of the Commandant, Marine Corps Schools. The academic direction of the Marine Corps Schools is the direct responsibility of the Assistant Commandant, Marine Corps Schools. The Commanding Officer of The Basic School is charged with

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[1]Data from the writer's personal interview with officers of the Plans and Policies Section, Headquarters, U. S. Marine Corps.

the execution of the mission assigned the school and its prescribed academic policy. The mission of The Basic School has been designated in a letter from the Commandant of the Marine Corps as follows[2]:

> To train newly commissioned lieutenants in those subjects pertaining to the duties and responsibilities of a Marine Officer, ashore or afloat, and of an infantry platoon commander in particular.

The broad content of the mission has always been generally similar to that quoted. Emergency conditions resulting in a limitation of the length of training and the possible necessity of matriculating other than commissioned students may to some degree affect the performance of the mission as stated above for peacetime. Under such circumstances current plans anticipate that a limitation or elimination of a major portion of the afloat phase would be necessary.[3]

The Basic School course consists of two main divisions: Leadership Evaluation and Development, and Military Training. Colonel Edward W. Snedeker as commanding officer of The Basic School made the following statement in regard to leadership evaluation and development:

> The great need of any military organization is for competent leadership, for leaders who through ability, profes-

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[2]CMC Letter serial MC 967265 dated 2 January 1946.

[3]Data from the writer's personal interview with officers of the Plans and Policies Section, Headquarters, U. S. Marine Corps.

> sional knowledge, human understanding, justice, physical fitness, example and devotion to duty will be worthy of leading young Americans. With few exceptions any young man who has undergone the process of selection for a commission has the fundamental qualities needed to become a good leader of Marines provided he makes a conscientious effort. Leadership qualities usually require considerable development. It is a primary responsibility of The Basic School to develop the leadership qualities and abilities of the young officers commencing their Marine Corps career.[4]

The organization for training at The Basic School was designed to provide for coordinated instruction in the two main divisions of the course under the direct responsibility of a supervisor of instruction. Professional military training to include indoctrination in all infantry weapons, tactical instruction through the battalion level with emphasis on the rifle squad, platoon and company, and training in the employment of supporting weapons in coordination with infantry was given by the three major groups of the academic section. The leadership section was specifically charged with the careful observation and recording of the leadership characteristics demonstrated by the individual student during his daily practical performance. The staff of the leadership section employed these compiled observations as a basis for clinical evaluation, counseling, and guidance in an effort to assist each student to develop his ability for leadership to the extent of his capacity. Details of the leadership evaluation pro-

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[4] Edward W. Snedeker, "The Basic School," Marine Corps Gazette, MCS, Quantico, Va., Jan. 1949, p. 29.

cedure will be covered in Chapter III of the thesis.

The Basic School does not anticipate that all of its graduates will perform their duties to perfection when they go to their first assignment. However, the background of training received at the school must be adequate to insure that the young officers are provided with the essential basic tools which, in the final analysis, can be fully developed only when combined with continued study and normal daily military experience. The Basic School meets these practical considerations by designing its curriculum so that it will provide the students with an adequate and substantial foundation of leadership and professional ability upon which they may continue to build their Marine Corps careers.

Under existing policy the performance of each student officer while attending The Basic School has no bearing on his precedence in rank. Precedence in rank is determined in each case by the Secretary of the Navy prior to commissioning and is based on demonstrated pre-commissioning performance. It is conceivable, however, that during an emergency when candidates may matriculate in an enlisted status their leadership and academic record might vary well be a serious factor in the Secretary of the Navy's determination of final precedence. Basic School performance records on each student are definitely used as a basis for marks and comments on the fitness report submitted on each student at the conclusion of the school year.

In the event any student fails to satisfactorily complete The

Basic School course a recommendation is made to the Commandant of the Marine Corps that the student's commission be revoked. It is essential, of course, that valid and complete leadership evaluation and military training records be available to support such a recommendation.

Source and Initial Selection of Students.--In the following discussion of the numerous procurement sources and the procedures involved in selecting officer candidates for commission only those qualifications believed to have some affect on the leadership potential of the applicant will be considered. Basic qualifications such as age and citizenship have little bearing, if any, on the subject matter of this paper and have consequently been omitted. There are seven separate sources from which the Marine Corps selects its officer personnel. A baccalaureate degree from an accredited college or university, or, in certain instances, a demonstration by test that the candidate has attained an equivalent educational level is a requirement common to all of these sources. Certain additional requirements peculiar to the initial selection procedures for each of these procurement areas are discussed in the following paragraphs.

Each year the Secretary of the Navy allots to the Marine Corps a quota which is filled from the current graduating class of the Naval Academy by appointment of members of the class whose applications for commission in the Marine Corps are submitted to and approved by the

Superintendent of the Naval Academy.[5] Initial admission to the Academy is by Presidential or Congressional appointment or by competitive examination among enlisted personnel of the naval service. The curriculum provides four years of college training preparatory to commissioning. During this four years of academic training considerable emphasis is also placed on leadership guidance and development.

The Naval Reserve Officers Training program established in 52 accredited educational institutions throughout the United States allots 16 2/3 percent of its graduating classes for appointment each year in the Marine Corps or Marine Corps Reserve. Students in this program pursue the normal college curriculum of the institution in which they are enrolled and in addition study specified Naval Science subjects and participate in drills and summer training courses. Upon completion of the sophomore year, students who desire to become Marine officers are given an opportunity to make application. Those students selected for the Marine Corps phase covered during the junior and senior years are required, upon completion of their junior year, to attend a summer training program provided by the Marine Corps Schools at Quantico, Virginia. This training period, in addition to its primary function of providing the student basic instruction in weapons and troop leading,

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[5] U. S. Department of the Navy, Headquarters, United States Marine Corps. Marine Corps Manual 1949, Vol I, ch. 5, art. 5001. Wash., D.C.: U. S. Gov't Printing Office.

offers the Marine Corps an excellent opportunity to observe and evaluate the potential leadership qualities of the students. Initial selection procedure for the NROTC program involves several hurdles designed to eliminate candidates who do not meet established standards. The applicant must first make a qualifying score on the Navy College Aptitude Test. Success on the aptitude test and a rigorous physical examination makes him eligible to appear before a state or territorial committee for interview. This committee composed of a prominent educator, a prominent civilian, and a senior Naval officer selects from the application files furnished them, the candidates whom they consider best qualified for the program. As a final requirement each candidate must be accepted by the university or college concerned.[6]

The Platoon Leaders Class program is available to students attending certain accredited colleges or universities provided they can meet the personal specifications established by the Marine Corps. When the application of a student for this program is accepted he is enlisted in the Marine Corps Reserve and is required to attend two separate periods of field training at the Marine Corps Schools, Quantico, Virginia following his junior and senior year of college. During these summer training periods leadership evaluation and develop-

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[6]U. S. Department of the Navy, The Naval Reserve Officers Training Course, Bulletin of Information Printed August 1950, p. 10.

ment is a vital factor in the program. Candidates become eligible for commission in the Marine Corps or Marine Corps Reserve upon completion of the senior course of summer training and receipt of a baccalaureate degree from an accredited university or college, if recommended by the Commandant, Marine Corps Schools.[7]

An enlisted man of the regular Marine Corps may be appointed as a second lieutenant in the regular Marine Corps for unrestricted duty provided he meets certain requirements. He must be first recommended by his commanding officer as meeting certain prescribed general requirements and as having displayed the traits of leadership, initiative, loyalty, character, intelligence, and physical stamina required of a Marine officer. He is further required to meet educational standards by having satisfactorily completed a four year course at an accredited college or university or to demonstrate by test that he has attained an equivalent educational level. A prescribed minimum score on the Marine Corps General Classification Test is also necessary.[8]

Any male citizen of the United States may be considered for commission as a second lieutenant in the regular Marine Corps provided he

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[7]U. S. Department of the Navy, Headquarters, United States Marine Corps. Marine Corps Manual 1949. Vol I, ch. 5, art. 5003. Wash. D.C.: U. S. Gov't Printing Office.

[8]U. S. Department of the Navy, Headquarters, United States Marine Corps. Marine Corps Manual 1949. Vol I, ch. 5, art. 5007. Wash. D.C.: U. S. Gov't Printing Office.

has satisfactorily completed a four year course at an accredited college or university, as evidenced by the receipt of a baccalaureate degree. Aside from meeting certain prescribed general and physical requirements candidates in this category are usually also required to demonstrate personal characteristics to a satisfactory degree before an interview board composed of three Marine Corps officers.[9]

Noncommissioned officers of the regular Marine Corps may be appointed to commissioned rank in the Marine Corps provided they meet certain prescribed requirements. A noncommissioned officer in this category must be recommended by a general officer, field officer, or his commanding officer. He must establish his mental fitness for commission by attainment of an educational level prescribed by the Commandant of the Marine Corps. He must have displayed traits of leadership, initiative, loyalty, character, intelligence, and physical stamina as required of a Marine officer.[10] Usually persons selected from this group have already proven themselves through actual performance.

A source which has only recently been recognized is the large group of former Marine Corps noncommissioned officers who, since leav-

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[9] U. S. Department of the Navy, Headquarters, United States Marine Corps. Marine Corps Manual 1949. Vol. I, ch. 5, art. 5006. Wash. D.C.: U. S. Gov't Printing Office.

[10] U. S. Department of the Navy, Headquarters, United States Marine Corps. Marine Corps Manual 1949. Vol. I, ch. 5, art. 5009. Wash. D.C.: U. S. Gov't Printing Office.

ing the Corps, have obtained a baccalaureate degree.[11] The screening process for this group will probably be similar to that for civilian college graduates with adequate recognition being given to their past records.

The requirements for initial selection as established in the foregoing paragraphs seem to give sufficient support to the assumption previously made that, in general, each class of students procured for officer training at The Basic School is composed of selected men. Educational requirements and proof of personal qualities through actual performance have been incorporated as substantial factors in the initial selection procedures. It seems logical to reason that students procured under these specifications should possess a reasonable degree of leadership potential. Experience at The Basic School gives support to this line of reasoning. The fact must be recognized however, that no personnel selection procedure is perfect and errors will infiltrate the initial processing from time to time. Colonel Edward W. Snedeker, while Commanding Officer of The Basic School, made the following pertinent comment in his article "The Basic School," printed in the January, 1949 issue of the Marine Corps Gazette.

> For over two years I have had the opportunity of observing our newly commissioned officers in The Basic School.

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[11] Data from the writer's personal interview with officers of the Plans and Policies Section, Headquarters, U. S. Marine Corps.

Through proper selection at the various sources the Marine Corps is assured that the men to whom it offers commissions have the basic physical, mental and moral qualifications needed to develop into a good officer. If any screening errors are made they will be discovered during the course at The Basic School. Class records show that no particular source of officers entering the Marine Corps has any special significance in the relative achievements of the student officers. All sources have contributed their share to the effectiveness of the Marine Corps.[12]

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[12] Edward W. Snedeker, "The Basic School," Marine Corps Gazette, MCS, Quantico, Virginia, Jan. 1949, p. 24.

# CHAPTER II

# THE LEADERSHIP PROBLEM

## Some Aspects of Leadership

Chapter I generally established that potential leadership ability is present in The Basic School student. The next problem is to seek information in regard to the basic factors associated with the subject matter and essential to effective leadership. Preliminary to such an investigation perhaps the issue can be clarified by examining some of the aspects of leadership as viewed by several students of the subject. Over the past thirty years numerous writers have attempted to pin down the intangible elements of leadership by definition. Each writer has had a slightly different concept. However, there seems to be some similarity and possible trend apparent when comparison is made. Until recently no serious scientific approach has occurred in the study of leadership. At the present time the Personnel Research Board of The Ohio State University, under sponsorship of the Office of Naval Research and the Human Resources Research Laboratories of the Air Force, is engaging in leadership studies for

the military establishment.[1] This board has rejected, at least for the time being, the trait approach to the study of leadership. It is attacking the problem primarily from the point of view of the activity which takes place during the act of leadership.[2] Considerable progress is being made in this research project, however full treatment of the subject is based on a ten year program started in 1946. Until the complete scientific results from the study of The Ohio State University Board are available perhaps a review of the concepts of "leadership" and the "leader" as observed during the past twenty years will suggest a practical approach to assessment and development of leadership. The following extracts were studied with this in mind; they are listed in chronological order for the period 1930 to 1949.

> Leadership is the name for that combination of qualities by the possession of which one is able to get something done in cooperation with others chiefly because through the leader's initiative those cooperating have been made parties to the objective and through his influence they are willing --even anxious--to aid in its accomplishment.[3]

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[1] Carrol L. Shartle, "Leadership Aspects of Administrative Behavior," The Ohio State University, an undated mimeographed paper, pp. 27, see footnote 2, p. 1.

[2] Ibid., pp. 7-8.

[3] Morris L. Cooke, "The Development of Leaders from the Ranks of Labor," Business Leadership, edited by H. C. Metcalf, New York: Sir Isaac Putnam and Son 1930.

Leadership I define as that combination of qualities, by the possession of which one is able to get something done by others, chiefly because through his influence they become willing to do it.[4]

Leadership is the activity of influencing people to cooperate toward some goal which they come to find desirable.

The unique emphasis on the idea of leadership here advanced is upon the satisfaction and sense of self fulfillment secured by the followers of the true leader. Today a psychologically and democratically adequate idea of leadership centers as much attention upon the results within the led as on the attributes or tangible methods of the leader.

A related truth is that the measure of the leader's success lies outside of and beyond himself. It lies in effective results at the point where the followers act.

The demand upon the leader is to know the attributes of the individual and to be aware of the characteristics of human nature. Every issue in leadership comes back to this: know the human organism, the manner of its behavior, the natural promptings of basic desires, the typical aspirations, the usual and possible modes of satisfaction, the conditions of satisfaction in a profound sense. The leader should be an expert in human nature--whether his knowledge is intuitive or acquired by conscientious study.[5]

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[4]Ordway Tead, "Coordination" Business Leadership, edited by H. C. Metcalf, New York: Sir Isaac Putnam and Son 1930.

[5]Ordway Tead, The Art of Leadership. New York, London: McGraw-Hill (1935) pp. 20-24-37.

. . . there is no one leader type . . . . There are certain traits, certain attributes, which are possessed to a fairly pronounced degree by practically all of them. When one of those traits is weak, success is generally due to an outstanding development of some of the others and to a skill in managing situations so that the weaker traits will not be needed . . . .[6]

The leader may be anyone who accepts the responsibilities for the achievement of an objective which requires the cooperative and coordinative action of a group. To discharge this responsibility obviously requires the proper performance of the functions of planning, organizing, and controlling group activities.[7]

The findings suggest that leadership is not a matter of passive status, or of the mere possession of some combination of traits. It appears rather to be a working relationship among members of a group, in which the leader acquires status through active participation and demonstration of his capacity for carrying cooperative tasks through to completion. Significant aspects of this capacity for organizing and expediting cooperative effort appear to be intelligence, alertness to the needs and motives of others and insight into situations, further reinforced by such habits as responsibility, initiative, persistence and self confidence.[8]

Leadership acts may be defined as acts by persons which influence other persons in a shared direction.

A study of leadership . . . becomes a study of leadership acts and the variables which will be relat-

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[6]George D. Halsey, How to be a Leader. New York and London: Harper and Brothers 1938, p. 41.

[7]Ralph C. Davis, Industrial Organization and Management. New York and London: Harper and Brothers (1940) p. 31.

[8]Ralph M. Stogdill, "Personal Factors Associated with Leadership: A Survey of the Literature," The Journal of Psychology 1948, 25, p. 66.

ed to such acts.[9]

## Factors Associated with Leadership

Principal Considerations.--Three main ideas emerge from these definitions of leadership. The first indicates that the discharge of leadership responsibilities requires proper performance of functions associated with planning, organizing and controlling; those related activities normally associated with effective executive action. The second refers to certain combinations of personal traits or habits which when employed skilfully serve to reinforce executive action in cooperative tasks. The third involves either intuition or acquired understanding of basic psychology and its application to the problem of motivating the individual. These three major ideas may provide at least a partial clew to the direction which should be taken in examining or designing training procedures for developing and evaluating leadership ability. If, as indicated by Shartle,[10] the study of leadership becomes a study of leadership acts and the variables which will be related to such acts, it seems equally reasonable that indoctrination in the actions required for efficient executive functioning as a part of the leadership act is basic to practical leadership training.

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[9]Carrol L. Shartle, "Leadership and Executive Performance," Personnel 1949, 25, pp 370 and 373.

[10]Ibid., p. 373.

The Leadership Act.--The predominate factors which seem to be associated with leadership were determined from descriptions based primarily on industrial and commercial situations. That good leadership action in these situations differs greatly from good leadership action in the military situation is not necessarily a truism in the mind of the author. The business objective for a company in an industrial situation is to preserve, acquire, create, or distribute values which will justify its existence.[11] The ultimate objective of a tactical unit in the military situation is success in combat. In each case sound executive leadership is required as "the force . . . that stimulates, motivates, and directs . . ."[12] the organization in achieving its objectives. Stogdill suggests that leadership also depends on the situation.

> The persistence of individual patterns of human behavior in the face of constant situational change appears to be a primary obstacle encountered not only in the practice of leadership, but in the selection and placement of leaders. It is not especially difficult to find people who are leaders. It is quite another matter to place these persons in different situations where they will be able to function as leaders. It becomes clear that an adequate analysis of leadership involves not only a study of leaders, but also of situations.
>
> The evidence suggests that leadership is a relation that exists between persons in a social situation, and

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[11] Davis, op. cit., p. 20.

[12] Ibid., p. 31.

> that persons who are leaders in one situation may not necessarily be leaders in other situations.[13]

The situational aspect of leadership does not remove the necessity for effective executive action in every leadership act. It merely indicates that possibly some individual patterns of human behavior fit certain leadership situations better than others. The leadership situation in military combat is no doubt somewhat different than the leadership situation in an industrial organization. The degree of difference presumed by the reader will likely be related to how much he has conditioned his mind to think of military leadership only in terms of personal bravery and similar factors which in the sense used are peculiar primarily to the military situation. If one can agree to think in terms of the three major ideas previously suggested as predominating in all good leadership the difference becomes quite small. It should also be remembered that generally only a small percentage of time spent by any military unit is combat time; the principal activity is training in preparation for combat. Many military units also are service in nature and do not involve combat leadership. With such a variety of situations existing in the military service, and the current lack of any measuring instrument to predict characteristics specific to good combat leadership, it seems illogical and poor

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[13] Stogdill, op. cit., p. 65.

economy to point leadership training toward combat situations only. The author believes that the leadership act in the industrial situation involves activities and behavior patterns which differ little from the general activities involved in leadership acts of the average military situation and suggests that the design for a leadership training and assessment program to be used in the basic training of officers be based on the following premise:

The executive activities of planning, organizing, and controlling, appropriately applied, and reinforced by an understanding of the principles of basic psychology and skilfull manipulation of a personal behavior pattern equivalent to the situation are fundamental to any act of good leadership.

The Leader.--Personality Traits.--As previously stated by Stogdill, " . . . persons who are leaders in one situation may not necessarily be leaders in other situations."[14] This suggests that one behavior pattern of a leader will not work well in all leadership situations. It also suggests that if a leader is to meet a range of leadership situations within a general area such as a military situation, he must be capable of adjusting personality traits or behavior pattern within limits. Such adjustment will require self analysis or training so that he is capable of recognizing his strong points and

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[14]Stogdill, loc. cit.

weaknesses. Recognized personality traits are almost without end. There are however certain ones more closely associated with leadership than others. Stogdill made a survey of those studies in which attempts had been made to determine the traits and characteristics of leaders. Only factors which were reported by three or more investigators are included in his study. Insofar as is known this is the most recent and thorough study of personal traits associated with leadership that has been made. Pertinent conclusions arrived at in the survey follow:

> The items with the highest overall correlation with leadership are originality, popularity, sociability, judgment, aggressiveness, desire to excel, humor, cooperativeness, liveliness, and athletic ability, in approximate order of magnitude of average correlation coefficient.
>
> The factors which have been found to be associated with leadership could probably all be classified under the general headings of capacity, achievement, responsibility, participation, and status:
>
> 1. Capacity (intelligence, alertness, verbal facility, originality, judgement.)
>
> 2. Achievement (scholarship, knowledge, athletic accomplishment.)
>
> 3. Responsibility (dependability, initiative, persistence, aggressiveness, self confidence, desire to excel.)
>
> 4. Participation (activity, sociability, cooperation, adaptability, humor.)
>
> 5. Status (socio-economic position, popularity.)[15]

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[15] Stogdill, op. cit., pp. 63-64.

Many of these characteristics or traits are intangible in nature. Some are definitely reflected in the stimulating effect they have on the actions engaged in by the leader. Those seeming of particular consequence to the leader in a military situation are listed under the headings (1) Capacity (2) Responsibility (3) Participation. The factor of status is more or less automatic in the military hierarchy; that of achievement, at least for junior officers, is usually determined prior to commissioning. The theory of individual differences recognizes that all leaders do not possess all traits in the same degree. Many leaders and most people give little thought to the effect these traits have on their own leadership acts. A good leadership program must adopt some practical means of evaluating the student's capacity for the essential traits and direct his attention toward the areas in which he may be weak or strong. A leader who has learned to recognize the effect of the various characteristics on his own behavior will be better equipped to recognize the degree to which similar qualities are expressed in the activities of others. Such an achievement can be of great help when considering subordinates for assignments or promotion.

Executive Leadership.--Possession of certain personal traits generally associated with leadership is, alone, of small value to a leader unschooled in the fundamental factors of executive action.

> . . . the measure of the leaders success lies outside of and beyond himself. It lies in effective results

> at the point where the followers act. His justification is his ability to forward an effective exercise of his followers' talents in accomplishing the purpose on which they are agreed. Fruitful participation in the task by the rank and file in the front line, and results at the point where they are active--these are the acid test.[16]

The leader's purpose in existing is to get a job done with a minimum of confusion and a maximum of economy in personnel and the physical factors with which they operate. The employment of good management principles is one means by which this purpose may be enhanced.

> Management is a force . . . exercised by executives: it includes planning, organizing, and controlling . . . activities. For the most part, good management and executive leadership are synonymous terms . . . .[17]

The mechanical aspects of organization are clearly set down for most military units. The principal problem confronting the junior officer is the training and directing of the men in his command. If this is to be done effectively the leader must be familiar with and capable of applying the principles involved in the action of planning, organizing, and controlling. As an example, intelligent planning must be exercised in preparing and carrying out training schedules. He should have a working knowledge of the theory of organization in order to in-

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[16] Ordway Tead, The Art of Leadership, New York, London: McGraw-Hill (1935) p. 24.

[17] Davis, op. cit., p. 38.

part smooth operation to his unit. Such knowledge will also be of assistance in understanding the locus of his organization in the larger picture.

> If the state of a command is such that the commander's hands are not free for the administration of his exterior tasks, it is an indication that the morale and leadership of the unit is based on incorrect principles and that insufficient authority has been delegated to subordinates.[18]

When the leader refuses to organize his command so that his subordinates are able to carry out the duties fixed to their sphere of responsibility he will find little time for planning. In most cases subordinates thrive on responsibility. Their effective growth and advancement depends on it. The leader must be cognisant of the principles involved in "span of control" and appropriate delegation of authority to promote harmony and teamwork in his unit.

The function of controlling involves the regulation of activities to insure performance as specified by the plans. Effective control requires supervision and coordination. It demands the removal of elements detrimental to proper performance. The leader must be familiar with the need for controls and the activities he must engage in to direct his organization in accomplishing his plan.

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[18] S. L. A. Marshall, Men Against Fire, New York: William Morrow and Co. 1947, p. 189.

All these things when understood and applied effectively by the leader can be basic tools of sound leadership. They have a deciding influence on the morale and teamwork in a command. Effective executive action is fundamental to leadership in all echelons. Academic instruction in the principles of executive action and a serious study of the scientific method of approaching and solving problems appear pertinent to any program for leadership training. It can be most useful when incorporated directly into the leadership program as a part of the related whole.

Intelligence.--Indications are that the possession of a reasonable degree of intelligence is a requisite for positive leadership ability in most areas. In the study by Stogdill it was determined that the average person who occupies a position of leadership exceeds the other members of the group in intelligence.[19] Ordway Tead has this to say of intelligence as it pertains to leadership ability.

> The necessity of relatively high intelligence in a leader will be readily acknowledged, it would seem, if the demands upon him are considered. In most situations, in his selection of objectives, in his technical mastery of the coordinative process, in his capacity to decide wisely, in his exercise of teaching skill and all the rest--his ability to see the point, appraise experience and get to the heart of the problem shrewdly, must be high. And he must show this ability with confidence--without undue delay and without that uncertainty which

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[19]Stogdill, op. cit., p. 63.

would cause anguish or distrust among his followers.[20]

The dictionary describes intelligence as "capacity for understanding . . . aptitude in grasping truths, facts, and meaning . . . good mental capacity."[21] From the foregoing comments it seems apparent that the factor of intelligence, as associated with leadership, is most correctly interpreted as general ability or capacity--the ability to adjust to different situations, to think, to work in the abstract, to reason logically, and should not be confused with acquired ability which is effected primarily through experiences. The degree of acquired ability essential to proper performance may vary with the echelon of leadership but the acquired ability of an individual to perform a particular duty can never exceed his intellectual capacity. Obviously then, in the military situation where leaders are normally expected to progress up through the leadership hierarchy, serious consideration must be given to the factor of effective intelligence as it may exist in prospective leaders. Academic achievement as a prerequisite of initial selection, and the academic phase of basic training at least serves as a partial measure of the individual's lower

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[20]Ordway Tead, The Art of Leadership, New York, London: McGraw-Hill (1935) p. 129.

[21]The American College Dictionary edited by Clarence L. Barnhart with assistance. New York and London: Harper and Brothers (1947) p. 633.

limits of intellectual capacity. General intelligence tests provide another means of measuring general ability. In many instances however, a low factor of effective intelligence for leadership may be more readily recognized through observation of an individual's daily activities. The application of common sense and good judgement in a person's social interaction with his fellow men is usually a good indication of whether or not he possesses the effective intelligence factor essential to good leadership.

Teaching Requirements.--The leader continuously finds himself in the role of a teacher in directing and influencing his subordinates in the performance of their functions. He is often called upon to help followers through experiences which bring about a changed mind and motive. One of the principal problems the leader faces in training situations is to develop a sense in the learner that he is engaging in an activity which is significant for him. All of these leadership actions are dependent upon the leader's ability as a teacher. Fern has the following to say in regard to the leader as a teacher:

> A discussion of the topic "Responsibility of a Supervisor" in practically all conferences conducted by the writer brought out the conclusion that a supervisor must necessarily be a good manager and a capable instructor in addition to supervising the work of men satisfactorily.
>
> A capable leader is always a capable guide and in-

structor.[22]

Many leaders tend to forget that teaching techniques must also be applied whenever proposals concerning the relations of members of an organization to the organization itself are being considered. It is important that a teaching sense be applied to these matters just as it is to job instruction. Many times it is even more important because the right way to educate people into a change of attitude or acceptance of a new procedure is often less well understood.[23] The leader will find it advisable to have a basic grounding in good teaching technique. He must also recognize the effect his own behavior pattern will have in reinforcing his application of good teaching principles. With such a close association existing between teaching and the leadership act it seems only reasonable that any leadership training program should include the teaching problem.

The Persons Led.--In our every day relations with people it is likely that we give greater thought to their similarities than to their differences. In a limited way people are alike--that is they have the same number of arms, legs, ears, and noses. Their body activities are similar and within limits of climate, country, and social

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[22]George M. Fern, Training for Supervision in Industry, New York and London: McGraw-Hill, 1945, pp. 12 and 13.

[23]Ordway Tead, The Art of Leadership, New York, London: McGraw-Hill, (1935) p. 151.

aspects they tend to have similar ambitions. For the few similarities, however, there are a great many differences. Some of the differences involve perceptual skills, learning ability, muscular coordination, emotional stability, span of attention and a number of others. If any group of people were tested in a particular skill or personality trait the distribution of the results when plotted with number of persons on the ordinate against their scores on the abcissa would normally result in a bell-shaped curve known as the frequency curve. Few people fall in the extremes; many fall in the middle range. Individual differences of this nature must be considered by the leader when he is selecting subordinates, assigning duties, or handling disciplinary cases. What might be effective in the case of one person may not be necessarily so for another. Selecting the necessary action for successful leadership involves the ability to foresee the effect that action will have on the people being led. Such ability requires an intuitive or acquired understanding of people and their probable reactions. A special survey to clarify the problems of development in the Owens-Corning Fiberglass Company brought out the following comment:

> Examining the problem, we reached the conclusion that the basic reason for the first-line supervisors poor showing (in Dr. File's test, "How Supervise") was lack of

a common understanding of what makes people "tick".[24]

It means that as long as leadership is a leadership of people one of the major features for developing leadership ability is an understanding of people.

> To get the enthusiastic cooperation which everyone would like, an executive must be able to motivate properly his associates and subordinates. This implies, to some degree, a knowledge of practical psychology. In brief, an executive should have an understanding of his fellow men, and a feeling of sympathy for them.[25]

The experience of others then, indicates that for effective leadership action the leader must understand the basic psychology of people. Basic instruction covering individual differences and the factors which influence human situations seems desirable and practical for a leadership training program. According to Tead several writers have prepared books using psychological material which they have related to actual human situations in which behavior as a whole can be analyzed. He suggests this type of text as most satisfactory for a basic understanding of human behavior.[26]

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[24]Lloyd S. Steinmetz, "Selection and Development of Foremen," American Management Association, Production Series No. 174 (1947) p. 31. Words in parenthesis furnished.

[25]Davis, op. cit., p. 276.

[26]Ordway Tead, The Art of Leadership. New York, London: McGraw-Hill (1935) p. 276.

The Leadership Situation.--As stated by Davis, "every leadership problem has three interacting primary factors--the leader, the people led, and the particular situation."[27] So far we have discussed the "leader" and the "people led". Stogdill also finds that a change in the leadership situation has an effect on the factors involved in the leadership act.

> . . . , leadership must be conceived in terms of the interaction of variables which are in constant flux and change. The factor of change is especially characteristic of the situation, which may be radically altered by the addition or loss of members, changes in interpersonal relationships, changes in goals, competition of extragroup influences, and the like.[28]

Although, within limits, it may be possible for each leader to make certain adjustments to changing situations, it is practically inconceivable that any training program can provide a guide to solve all of them. It would seem that a leadership training program could be more profitably based on an average situation characteristic of a broad area. For example, because the military service consists of many varied but related tasks, it is believed appropriate to consider it operationally as a broad situation within which the military leader must be capable of acting. Determining behavior patterns that

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[27] Davis, op. cit., p. 31.

[28] Stogdill, op. cit., p. 65.

would be considered generally desirable for influencing and reinforcing executive leadership in the military field should not be too difficult. With the pattern established the next step is to indoctrinate the student in regard to the manipulation and development of those personal traits that will enable him to meet adequately most situations in the military area. A valid evaluation program will prove of considerable value in eliminating those candidates found wanting of the minimum requirements.

## More Techniques for Assessing Leadership Potential

General.--Almost everyone will readily concede that leadership, or the lack of it, exists and that its results, whether positive or negative, affect our daily activities. Conversely, if one is asked to describe or measure leadership, its discernible aspects seem to disappear and one is left holding a bag of high sounding adjectives that, when committed to phrases, mean very little. An attempt was made in the previous section to treat some of the practical factors that appear to be associated with leadership. If the reader will concur in regard to the majority of those practical factors and will agree to the existence of leadership then the writer submits that, "leadership ability can be determined by examining individual performance in the light of those critical factors associated with leadership." It may be well to recognize at this point however, that to date there

are numerous limitations to quantitative measurement of leadership on a fine scale. Joseph W. Eaton, in discussing tests for leadership, has this to say in regard to measurement.[29]

> It may be useful to recognize at the start that these tests and ratings, no matter how carefully constructed and administered, may never reach a high degree of reliability on a fine numerical scale, such as from 0 to 100. Qualitative rating scales, with a few large gradations, may approach a satisfactory degree of reliability more easily. Such rough distinctions are perhaps more appropriate and valid for the evaluation of complex social personality "traits" such as leadership. The sketchy data on hand give encouragement that sociodramatic tests, combined with sociometric ratings, could be developed to achieve a valid separation of upper and lower deciles or quartiles of persons most likely to succeed or fail as leaders in a specified group.

The author agrees in general with this view of Eaton's but does not necessarily believe that differentiation by numerical grading is entirely inappropriate. So much will depend on the design of the evaluating system and the capabilities of the assessors.

Assessment as well as leadership is situational in nature. Economy, time, and stage of selection are factors which tend to determine the procedures appropriate for selecting candidates for leadership assignments. Methods which take time, are generally more accurate, and can be best employed during a training program. The time factor

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[29] Joseph W. Eaton, "Experiments in Testing for Leadership," The American Journal of Sociology 1947, 52, p. 534.

however, will usually preclude their use for initial selection. Certain procedures may employ the situational approach and be capable of administration in the relatively short period of two or three days but may be extremely uneconomical of both assessors and candidates. Situational approaches of this type administered in a hurry may eliminate "slow starters" who would otherwise qualify. An assessment procedure that measures qualities desirable for one area of leadership may not validly measure qualities desirable for another area. Therefore, in view of the situational aspect of leadership, any assessment procedures must be designed to measure the specific factors involved in the type of leadership appropriate to the area being investigated. Tests supposed to measure common factors of leadership such as general intelligence, aptitude, etc., are readily administered by paper-pencil techniques during initial selection. Unfortunately however, psychological tests of this nature, although useful in eliminating technically unqualified personnel from further consideration, have only limited validity even for that purpose and cannot measure social behavior. Other means must be devised to measure a candidate's leadership capacity in social situations similar to those in which he is expected to operate.

Experience in assessing men for qualities of leadership has established a few recognized principles applicable to the design of an assessment program. There is considerable agreement between the principles advocated by Eaton in the conclusions to his article "Experi-

ments in Testing for Leadership"[30] and those established by the Office of Strategic Services Assessment Staff during World War II.[31] Some of the basic principles extracted from both sources are paraphrased below:

1. Clearly establish the criterion, or type of assignment the candidate will be expected to perform and for which he is being assessed.

2. On the basis of the criterion or preparatory analysis, list all the skills and personality determinants of success or failure in the type of assignment to be performed. From this list select the variables to be measured and design the program so that their measurement takes place in a situation of simulated reality with trained observers assessing the candidates.

3. Tests should be kept simple to facilitate uniform and easy administration.

4. Define (in words that are intelligable to the assessors of the organization) a rating scale for each of the skills or personality variables on the selected list. Each component in the test situation should be studied to discover the different alternatives for response and each response evaluated as to significance.

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[30] Eaton, loc. cit.

[31] The OSS Assessment Staff, Assessment of Men, New York, Rinehart and Company, Inc., 1948, pp. 28-56.

5. Wherever practicable measure each variable by more than one means.

6. Provide for systematic recording of all essential data for review by staff conference prior to final decisions on ratings and recommendations for each assessee.

7. Provide for continuous evaluation of the assessment techniques being used.

Assessment Techniques.--General.--Some of the techniques which have been employed in various areas to measure leadership qualities will be discussed briefly. The reader should keep in mind when considering each of these measurement techniques that, first, no one means can be depended upon to give all the answers nor to present a complete picture; second, although the principles for the application of each technique may be generally the same from one situation to another the technique itself must be designed to measure the particular factor or factors applicable to the situational aspects of the area under investigation.

Paper-Pencil Tests.--General intelligence, aptitude, achievement and various other factors, for which a minimum critical score is desirable in the selection of persons for leadership assignments, lend themselves to easy testing by paper-pencil techniques. Tests of this nature are quite good for eliminating the obviously unfit, and the relative ease with which they can be administered makes them particu-

larly adaptable to the initial selection phase. Obviously if a valid paper-pencil test for measuring leadership potential could be prepared its use would save vast amounts of time, money, and manpower in selecting and training military leaders of all ranks. Nothing of significance has yet been accomplished in the preparation of such a single measuring instrument. The majority of paper-pencil tests which attempt to measure personal qualities tend to be so subjective in nature that the person being tested can quite obviously determine the answers that are desired. There is, however, one method of preparing objective paper-pencil tests which employs principles that might very well be effective if applied to the measurement of leadership potential in individuals. Application of the principles of the forced-choice method of testing is suggested for investigation. Considerable success, documented by validities as high as .62 and .74, has been attained in applying the forced-choice principle to merit-rating. It seems logical that paper-pencil tests for leadership potential using these same principles and based on the factors pertinent to leadership in the situation being considered should, when properly validated against leaders of known caliber, produce some valuable information. A complete discussion of the forced-choice principles is beyond the scope of this thesis and the reader is referred to a discussion in regard to its

application to merit-rating by Marion W. Richardson.[32]

Interview.--The interview as a predictive means has had extensive use in practically all fields of endeavor. Perhaps its primary feature is the opportunity it affords the interviewer to obtain a first hand observation of certain individual characteristics that would not normally show up in the results of other tests. This seeming advantage, however, tends to create other variables which in the final analysis prove to be serious shortcomings to reliability.[33] In the first place the interview tends to be subjective in nature varying with each interviewer, and in some instances even involving personal generalizations about such unscientific items as physiognomy. There is also the possibility that the interviewer may become so wrapped up in questioning his subject that he will fail to accurately observe the subject's reactions; he may even be influenced by the candidate's reaction to him. Furthermore the interview is not generally considered a good measure of normal social behavior.

The most usual type has been the personal interview for the purpose of developing information regarding the subject's personal his-

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[32]Marion W. Richardson, "Forced-Choice Performance Reports--A Modern Merit-Rating Method," Personnel, 1949, 26, pp. 205-212.

[33]Joseph W. Eaton, "Experiments in Testing for Leadership," The American Journal of Sociology 1947, 52, p. 523. Harold Ernest Burtt, Principles of Employment Psychology, New York and London: Harper and Brothers 1942, p. 452.

tory and general qualifications. Another type, the "stress interview," has found its way into areas where information regarding such specific factors as emotion under stress is essential to selection for a particular assignment.

Application of the interview, as for any other predictive technique, calls for an understanding of the area for which the predictions are being sought. The particular factors to be measured must be clearly segregated and an interview situation established that is specifically designed to point them out.

There seems little reason to doubt that many of the serious shortcomings in the interview situation can be circumvented through the use of initiative and imagination when setting up specific interview situations for the purpose of checking on or measuring certain factors not readily measured by other techniques.

Socio Drama.--The socio dramatic technique involves situational performance by an individual or group in a social or operating situation of simulated reality. It gives the assessor an opportunity to observe the reactions of the subject when confronted with all of the variables that may be produced through the interactions of other human beings that are a part of the situation. This technique of measurement is commonly known as situational testing. Such testing may be structured or unstructured. In the structured test a particular type of situation is staged so that certain variables are constant and the subject is observed for particular factors he may demonstrate in re-

acting to the specific situation. The unstructured test may be employed when the assessor desires to observe a subject's reactions within normal day to day occurrences that are not forced in any way by the assessing staff. Employment of this latter type of situational test practically requires that the assessor group be closely associated with the candidates on a twenty-four hour per day basis for a sufficient period of time that will promote close acquaintance.

Testing situations can also be created on either a leaderless or an assigned leadership basis. Each method will allow for the demonstration of different leadership qualities. Assertiveness and initiative are examples of qualities that may be demonstrated when a leaderless group is assigned a particular task to accomplish. In this case each individual will generally compete for leadership to whatever degree may be characteristic of his nature. Leadership in such a situation may change hands several times until the group finally accepts the leadership of the one individual who has been most successful at demonstrating his capacity and gaining group acceptance. A test of this type will generally also provide a very good indication of the willingness for cooperation and teamwork on the part of all candidates. The leaderless group situation gives very little opportunity however, for any individual to demonstrate a capacity for planning, organizing, and other executive abilities. Observation of such abilities requires the creation of situations involving problems wherein individuals may be assigned positions of leadership along with con-

nensurate authority. Under circumstances of this nature such additional factors as capacity for assuming responsibility and the ability to delegate authority and to control the conduct of action in accomplishing an assigned mission are more readily observed.

The socio dramatic technique, as well as any other means of testing, must be designed to fit the situations which the candidates may meet in their future assignments. Before an adequate situational test can be provided, analysis must first prove the qualifications to be predicted.

Sociometric Questionaires.--The sociometric test is basically a technique for measuring attractions and repulsions between various individuals constituting a specific group.[34] It is perhaps more commonly known as "group opinion" or "buddy nomination" and involves the use of a paper-pencil questionaire form designed to permit individuals, who have participated in the activities of a group for a sufficient period of time, to indicate their reaction to other members of the group by ranking each member with respect to all of the other members, usually on a scale established for that purpose. By virtue of its employing a multiplicity of raters this technique minimizes the usual unreliability of single ratings by superiors in the conventional rating methods. Even though a single rating by one member of the group

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[34] Charles E. Howell, "Measurement of Leadership," Sociometry 1942, 5, p. 163.

may be unreliable, the average of a number of such ratings will usually provide a stable measure relatively free from bias and the abnormalities which may arise in a single rater. The use of a sizeable number of raters also tends to introduce a greater and more accurate distribution over the continuum. Wherry and Fryer in a study conducted on two Army Officer Candidate Classes at the Signal Corps Officer Candidates School, Fort Monmouth, New Jersey in the summer of 1945 found that "buddy nominations" by fellow students measured at the end of the first month the same factors that ratings by superiors eventually observed at the end of four months.[35] This same study also determined that "buddy nominations" were sufficiently reliable (correlation coefficient .58) after four months to be considered useful and that they possessed comparable validity with academic grades (coefficient of .50) in predicting successful graduation.[36] The evidence in the Wherry and Fryer study does not establish whether buddy nominations are good predictors of leadership potential as no adequate criterion was available against which they could be validated.

Another study conducted by Williams and Leavitt in 1944 at the Marine Corps Officers Candidate School does indicate a superiority

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[35]Robert J. Wherry and Douglas H. Fryer, "Buddy Ratings: Popularity Contest or Leadership Criteria?" Personnel Psychology 1949, 2, p. 148.

[36]Ibid., pp. 155-157.

for group opinion over staff leader ratings and certain objective tests in predicting success for both graduation from OCS and future success in combat.[37] Group opinion at the end of two weeks correlated .47 with later combat performance while the correlation between staff leader ratings at the end of fifteen weeks and later combat performance was only .36.

There appears to be sufficient evidence that the sociometric technique has much to offer as one means of prediction and that it deserves some consideration in any personnel program which involves acceptance or rejection of potential leaders.

## Application of Assessment Techniques

General.--The principles involved in the foregoing techniques are generally applicable for most personnel areas. Perhaps the most profitable use of any of the techniques for investigating leadership potential will be attained when they are used in combinations that will insure a multiple approach to all of the factors through which an individual may expect to express leadership ability in his future assignments.

Original credit must go to the Germans for introducing a type

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[37] Stanley B. Williams and Harold J. Leavitt, "Group Opinion as a Predictor of Military Leadership," Journal of Consulting Psychology, 1947, 11, p. 291.

program which was later to be copied and improved upon by the British Army and the U. S. Office of Strategic Services. The German method is briefly summed up in a report by Ansbacher as follows:[38]

> The method is always the attempt to place the testee in realistic situations where his entire behavior is rated with emphasis on personality. This rules out exact measurements. Objectivity is attested instead by requiring the agreement of several examiners in the interpretation of the behavior symptom before it is considered indicative of a trait. Within the delimitation of the qualitative method, the procedure is psychologically sound and is likely to be an effective selection device . . . . From many samples of behavior, symptoms are observed. From a number of symptoms, conclusions as to a personality trait are drawn, and judgement of a trait is not made until it seems to fit with the picture of the total personality. Thus, every test item, be it designed as an intelligence test or one of motor performance, is used to judge the personality.

The remainder of this chapter will briefly discuss the practical methods used for applying assessment techniques in various military organizations. Emphasis will be given to the situational approach. The primary purpose of assessment in each of the organizations from which examples are taken was initial selection. There should be no reason, however, that application of the general principles involved needs to be so limited.

The British Army 1942-45.[39]--Selection of officers for the Brit-

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[38] H. L. Ansbacher, "German Military Psychology," Psychological Bulletin, 1941, 38, pp. 370-385.

[39] Ben S. Morris, "Officer Selection in the British Army, 1942-1945," Occupational Psychology, London 1949, 23, pp. 219-234.

ish Army prior to 1941 was from among those men who had received a School Certificate or had passed an equivalent examination, while attending one of the schools which provided an Officers Training Corps. By the end of 1941, selection was accomplished by Interview Boards attached to Army Commands, each board having three members. Decisions of the boards were based on the candidate's answers to questions, and such traits of character or department he might betray during the twenty minute interview. Depreciation in quality of manpower with the progress of World War II quickly proved the limitations involved in the simple interview method. Three major factors, failure rate at Officer Cadet Training Units, morale in the ranks affecting applications for commission, and poor performance in the field, soon called for more efficient assessment of a populace which was reaching the limitations of its manpower pool.

War Office Selection Boards were established as a solution to the problem. A typical board consisted of a President (a Regimental Officer with the rank of Colonel), Advisers (officers with regimental experience), and a Psychological Staff. Each board was established with the following purposes as a basis upon which they would operate:[40]

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[40] Morris, op. cit., p. 221.

1. An attempt to obtain a fairly comprehensive acquaintance with each candidate, as an individual, and as a member of a group, during the period of residence with the Board, usually three days.

2. To analyze the variety of roles filled by an officer in modern warfare in order to provide criteria of selection.

While the candidate was in residence at the Board a number of observers gathered information and based their judgements of his performance on a variety of standardized quasi real-life situations, on interviews, and on standardized paper-pencil tests. The performance tests included, besides such items as personal courage, speech, etc., group leadership tests in which an individual was appointed as leader and given a simulated combat mission to perform which included preparing the plan of attack, delegation of duties to group members, and a defense of the plan as prepared. Leaderless group situations were also used in which a simulated combat task was assigned to a group for which a leader had not been appointed. The total personality score assigned each Cadet at the end of the assessment period was determined by pooling all judgements at a conference of the board. Final decision rested always with the President of the board as official representative of the military services which would eventually be the user of the successful candidate's abilities.

Three major follow-up studies were attempted in order to compare the performance of officers selected by WOSBs and those selected under

the old procedures.[41] Extreme difficulty was encountered in obtaining really satisfactory samples, and from the data available the evidence of any clear difference between officers selected under the two systems was not conclusive.

Some superiority for the WOSB system can perhaps be inferred from a few general facts. Cadets selected under both systems, and who later attended various OCTUs simultaneously (72% selected by WOSB, and 49% selected by the old procedure) were given OCTU ratings as follows:[42] 35% WOSB selectees and 22% old procedure selectees above average; 25% WOSB selectees and 37% old procedure selectees below average. WOSB methods did achieve a high degree of acceptability with all ranks and the results of an anonymous questionnaire completed by both successful and rejected candidates were overwhelmingly in favor of the system.

The Office of Strategic Services.[43]--General.--One of the most extensive and ambitious programs developed by Americans for assessment of an individual's qualities was inaugurated by the Office of Strategic Services during World War II. It followed, in general, the patterns originally established by the Germans and the British, however, in contrast, the assessment stations in the United States were expected

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[41]Harris, op. cit., p. 226.

[42]Ibid., p. 226.

[43]The OSS Assessment Staff, Assessment of Men, New York: Rinehart and Company Inc., 1948, pp. 541.

to estimate suitability for a great variety of jobs as compared to the single military features of the previous experiments. Extensive coverage of the OSS methods is not possible within the limitations of this paper; only those procedures directly concerned with the assessment of leadership potential will be discussed.

The Office of Strategic Services conducted its program through a series of assessment stations in the United States and abroad. Each station provided complete assessment procedures; the normal time required to assess a group of approximately eighteen candidates was three days. The recruitment program obtained candidates from the various branches of the armed forces and directly from civilian life. Candidates were not assembled as a group for transfer to the assessing station until they were first issued Army fatigue clothing which they were to wear from that moment until the completion of assessment proceedings. This policy served to conceal the often powerful effect of rank differences which might otherwise color the assessment findings in view of the variety of candidates which included officers, enlisted men and civilians from all positions in life. In furtherance of this policy each candidate was instructed to provide himself with a cover story that he would operate under during his entire stay at the assessment station. No one was to reveal his true identity; no one was to break cover with the assessors except under specific circumstances agreed to by the assessor; maintaining cover was a part of the test program.

The major purpose of the OSS assessment staff was to eliminate the unfit. In order to accomplish this it was necessary to develop a system of procedures which would sufficiently reveal the personalities of recruits to the extent of providing adequate grounds for predicting their usefulness to the organization in accomplishing its wartime mission. The problem of devising adequate tests was not easy because of the great diversity of special skills called for by the OSS field projects. The OSS psychologists and psychiatrists were expected to estimate a candidate's capacity to evoke respect and work with others, as well as his ability to plan and organize the activities of others. Lack of standardized procedures for making such measurements dictated the need for improvisation. Although many standard paper-pencil tests were used, situational testing required imagination and initiative in designing problems that would establish, through the candidate's performance, the evidence necessary to successfully evaluate him for future field assignments.

The surroundings in which the assessment took place were really basic to the entire procedure. Conditions were so controlled that a comfortable and informal atmosphere prevailed throughout the testing program. Under those circumstances many splendid opportunities were created for observing the candidates under all types of social inter-

action.[44]

Seven procedures were used during the last two assessment periods at Station S, a large farm near Arlington, Virginia. Five of these were situational tests of which three field problems (Brook, Construction, and Assigned Leadership) provided an opportunity to observe the candidate's reaction when confronted with a practical field problem, while two (Discussion and Debate) revealed leadership qualities in an indoor situation of give and take argument. The sixth procedure (rating by associates) furnished the assessors with data on each candidate as expressed through his standing in the eyes of all the others. The last procedure (rating by interview) yielded information determined by a qualified clinician who presumably through assignment and concentration on the particular candidate had reason to know him best.[45]

As for most other projects of this nature very little success has been obtained in validating the assessment results.[46] No appreciable relationship was found with any of the criteria used, namely, appraisal by staff members sent to individual duty stations to evaluate individual success, appraisal by theater commanders, appraisal by inter-

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[44]The OSS Assessment Staff, Assessment of Men, New York: Rinehart and Company Inc., 1948, pp. 8-24.

[45]Ibid., p. 301.

[46]Ibid., p. 392.

viewing individuals in the reassignment area, and by associates' appraisal. There is no real way of knowing now whether the fault lies in the assessment techniques or in the criteria against which they were validated. Perhaps if a few of the men who failed the course of assessment could have been sent to duty in the field as a control group a better measure might have been available.

The Brook Test--A Leaderless Group Situation.[47]--The natural setting for the Brook test consisted of a designated point on a small stream that ran through the testing area. The stream was quiet and shallow with banks approximately eight feet apart and lined with trees. A heavy rock was visible on the far bank; the near bank contained a log, which was to represent a delicate instrument in the problem, and scattered about the area were such odd bits of material as boards (none long enough to reach across the stream), three lengths of rope, a pulley and a barrel with both ends knocked out.

For purposes of the problem the stream represented a raging torrent so fast and deep that it was impossible to rest anything on its bottom. Both banks were sheer and all work had to be accomplished from their top.

The mission of the group was to transport the delicate range finder, skillfully camouflaged as a log, to the far bank and to bring back the box of percussion caps, camouflaged as a rock, to the near side. The limits of the problem area were staked off and all local material found within that area could be used. No one was permitted to jump

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[47]The OSS Assessment Staff, op. cit., p. 94.

across the stream and the problem was not considered over until all men of the group had reassembled on the near bank after the mission was accomplished.

The test was designed to accommodate from four to seven candidates. The problem solution required the cooperative effort of the group, however, no leader was assigned by the staff. Under these circumstances it was possible for the staff to observe the reactions of individuals striving for leadership, ability to retain leadership when once established, and the willingness of individuals to cooperate in a group effort. Two types of leadership were generally observed: leadership by assertion and leadership by efficiency. Leadership by assertion was not always maintained and sometimes another individual, although quieter, often took over leadership after suggesting ideas that would work. The quality of leadership varied, however, it was usually noted that the best leader was one who stayed close to the work or who selected one or two assistants to collaborate with him in working out a logical plan and directing the task.

The Construction Test--an Assigned Leadership Situation.[42] --The construction test really turned out to be more a measure of the candidate's reaction to frustration as, under the structured circumstances, the assigned task could never be accomplished regardless of the leadership exerted. The results were so upsetting for most candidates that

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[42]The OSS Assessment Staff, op. cit., p. 102.

a post construction interview for therapeutic purposes was always scheduled. This test is a good example of one designed to measure particular characteristics by means of a situation which would perhaps never really be encountered in regular operations. Tests of this type do have specific value for the particular purpose for which designed but in some respects may be unfair to the candidate.

The test was individual in nature, the candidate being confronted with the task of constructing a frame structure by fitting together certain prescribed wooden pieces in a period of ten minutes. He was furnished two helpers who, unknown to the candidate and to his misfortune, were members of the staff. They both did everything possible to confuse and humiliate the candidate in carrying out the instructions which he gave them.

The staff, of course, never expected a candidate to complete the task. Although a considerable quantity of data was collected on emotional stability the insight which the staff had concerning the reactions to expect enabled them to evaluate certain leadership qualities by observing the methods by which the candidate attempted to gain cooperation from his helpers and by the persistence he demonstrated in working toward completion of the task.

The Mined Road--an Assigned Leadership Group Situation.--The OSS staff realized that in group situations similar to the Brook test, in which no leader was appointed, only a limited view of the candidate's ability as a leader was available. It was generally impossible to

evaluate leadership ability in those candidates who never managed to attain such a position in those tests. A few group problems, of which the mined road is an example, were created to allow all individuals full opportunity to exercise leadership when given authority.

Preliminary instructions for this type problem were given to the group assembled at the problem area. They were told that the group would participate in a number of field problems in each of which the group would work as a team with a new member in the role of the assigned leader for every problem. After a briefing session on the problem the leader was placed on his own resources in leading the group through its assigned mission. A typical briefing for the Mined Road problem went something like this:[49]

> Joe, you're the leader in this situation. You're leading this group back from a mission in enemy occupied territory. You and your men have blown up a bridge about a mile away in this direction (points behind them). According to prearranged plans, you must meet a guerrilla truck about a mile away from here in this direction at a time which leaves you only ten minutes to spend getting across this road. You have discovered that this road has been mined with a new type of sensitive . . . mine which you won't be able to neutralize or dig up. The limits of the problem are this: the road is assumed to be between these white lines, and you can work up and down the road as far as the white lines extend. The explosion at the bridge has aroused the enemy, but so far they don't know in which direction you have gone. Your problem is obvious: to get across and leave as little trace of your escape route as possible. OK, go ahead.

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[49]The OSS Assessment Staff, p. 146.

Situations of this type enabled the staff to rate leadership by observing how well the appointed leader maintained his position, the manner in which he delegated authority and planned and organized ideas, and his ability to spur the group on to accomplishment. As the situation changed; as he was perhaps faced with failure, the staff was able to objectively observe in the assigned leader certain personal traits such as judgement, discretion, loyalty, adaptability, decision, persistence, etc., which were exposed through his reaction to the problem.

The Discussion Test--a Verbal Leaderless Situation.[50]--The discussion test provided a means for the candidates to demonstrate leadership ability in the verbal situation. Candidates were assembled at a table and assigned a topic for group discussion. A typical topic was "What are the major post war problems facing the United States?" The final solution was to be that on which most of the members of the group could agree, however, the group was cautioned that each man should be given the opportunity to express his opinion. Near the end of the period the opinion was summed up and one member of the group delivered it to the staff members who were observing from the other end of the room.

The candidates were rated on such factors as ability to guide

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[50]The OSS Assessment Staff, op. cit., p. 129.

the group toward a definite goal, acceptance of leadership by other members, convincing and confident discussion of the topic, consideration for the rights of others in presenting their views, ability to summarize and maintain orientation of the group as it progressed through new ideas in the discussion.

The Debate Test--a Leaderless Group Situation.[51]--The debate test, although somewhat similar to the discussion technique, offered a better opportunity for leadership on a larger scale. In this situation the entire group was divided into two sections and given a question for discussion such as "What are we fighting for?" Each section was sent to a separate room to prepare its arguements, and to select a chairman to organize the discussion and present its position. Several members of the staff observed each team during its preparation for the debate so that data could be compiled on leadership in a manner similar to that used in the discussion test.

The setting for the debate was strictly informal and hard liquor was also made available with the idea of encouraging some of the more reluctant candidates to enter the discussion. The situation was further enhanced by the debate coming at the end of the second day allowing greater freedom of social interaction as a result of the group by this time having become quite well acquainted with each other and their surroundings.

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[51]The OSS Assessment Staff, op. cit., p. 177.

Nomination Technique--by Associates.[52]--The nomination technique was applied during the third day of OSS assessment. Every effort was made to impress each candidate with the seriousness of the rating task and the necessity that it be executed with complete honesty.

Each candidate was furnished a master list of eleven questions which were to be answered by indicating after each question the assigned numbers of the men to which, in the opinion of the rater, they applied. The candidate was not required to list the number of any person on whom he could not honestly report. Scoring was by number of choices received; it was not found necessary to statistically analyze the data in order to use it effectively. Three representative questions used in the nomination procedure were:

> 1. If you were given the responsibility of picking men who would have to live together and work together on a group project, which men would you hesitate about because of their difficulty in getting along with others over a long period of time?
>
> 2. If you were a member of a group on a dangerous mission, whom would you prefer to have as your leader?
>
> 3. Which men seemed to antagonize other members of the group?

In conjunction with the nominating technique each candidate was also required to write five personality sketches on the five persons

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[52]The OSS Assessment Staff, op. cit., p. 181.

he had come to know best. These sketches served several purposes with respect to both the writer and the candidate they interpreted.[53] They gave an indication of the writer's ability to size up others correctly and served also as a test of whether he tended, through projection, to attribute his own faults to others. They also furnished a lead as to why some candidates were accepted or rejected by their associates, and indirectly determined in some instances whether or not candidates had broken cover among themselves.

The Interview.[54]--There was no particular pattern established for the interview technique applied during the OSS assessment. It usually came at the end of the third day after all ratings on the candidate's performance in previous situations had been completed. This gave the interviewer an opportunity to question each individual candidate on points that might appear doubtful in previous data. Each interviewer was an expert clinician and each had his own methods of developing the interview. In general, the interview was started by placing the candidate at his ease in comfortable surroundings, defining the purpose of the interview, and the conversation directed toward some feature in the subject's history, military record, or manner of hearing about OSS. Some interviewers, however, purposely made the candidate uncomfortable, while still others adapted to new situations

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[53] The OSS Assessment Staff, op. cit., p. 167.

[54] Ibid., p. 113.

created by the candidate by deliberately letting tensions rise to observe the candidate's reactions. The technique of the assessment interview can be summed up in the following quotation:[55]

> It is apparent then that to a degree proportional to the experience and skill of the interviewer, the interview might be, and indeed was, almost completely flexible. In the space of one and a half hours the candidate could be closely observed in a variety of inter-personal relationships. One could study his behavior when he felt comfortable, friendly, and fully at ease; when he was tense and apprehensive; when he was puzzled and uncertain what might happen or was expected of him.

The Basic School, Marine Corps Schools, 1950.[56]--An Officer Candidates Screening Course for the purpose of screening enlisted candidates for commission was established at The Basic School, Marine Corps Schools during the summer of 1949 and repeated again during 1950. The techniques of assessment were similar to those employed by the OSS during World War II but the course lasted four weeks rather than three days. Eighty-six candidates participated in the 1950 course from which fifty-one were finally selected to attend the 7th Basic Class.

The assessor group consisted of selected line officers from The Basic School staff and a team of psychiatrists and psychologists from

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[55]The OSS Assessment Staff, op. cit., p. 117.

[56]C.O., The Basic School ltr. to Commandant of the Marine Corps, serial 103, dtd 22 August 1950. C.O., The Basic School ltr. to Head, Neuropsychiatry Branch, Bureau of Medicine and Surgery, Dept of the Navy, serial 102, dtd 18 August 1950.

the Bureau of Medicine and Surgery, U. S. Navy. The group of eighty-six candidates was organized into five groups, each under an experienced line officer who rotated to a new group each week. The team of medico-psychologists administered seven paper-pencil psychological tests and in addition spent one full day with each of the five groups during which they interviewed each candidate and administered the Rorschach and the Thematic Apperception Tests. The rankings determined by the team from the Bureau of Medicine and Surgery were reported separately from those made by the line officers and were chiefly used for purpose of further research by the Bureau in the field of leadership evaluation. Ranking by line officers at the end of the four week course were used to select the candidates for entry into The Basic School. These line officers based their assessment upon the leadership qualities displayed by the candidates while participating in structured field problems, extemporaneous speeches, group discussion, results of sociometric questionaires, and other technique similar to those used by the OSS.

At this early date there is no statistical study available on the results of the screening course just discussed. General comparison of ranking by the medico-psychological team and the line officers, except for a few instances, showed little similarity. To the best of the writer's knowledge a criterion has not been established against which screening results can be validated. In the absence of such a criterion the only remaining measure of the assessment procedure is

the candidate's leadership standing upon completion of The Basic School. The writer compiled percentile standings in final leadership rank for this group of fifty (one deceased during school term) candidates who completed The Basic School in March 1951. The percentile standings in a class of 349 showed the following results:

56.8% stood at or above the 75th percentile
88.2% stood at or above the 50th percentile
9.8% stood at or below the 40th percentile
7.8% stood at or below the 30th percentile.

In addition to these very favorable percentile standings the number one man from the Officer Candidates Screening Course was also rated number one in leadership standing in the 7th Basic Class. Whether or not a "halo effect" carryover existed in leadership marking from the screening course to The Basic School is difficult to determine, however such a situation is quite possible. It should also be remembered that the enlisted candidates processed through the screening course had certain initial advantages of service experience which might have some effect on their leadership standing over the relatively short observation period while in The Basic School. Results of the sociometric questionnaire administered on three different occasions in each platoon during The Basic School course is another factor, however, which adds to the threads of evidence indicating superior leadership ability in the group selected by the screening course. This group

continually received relatively high rankings in these questionaires.

The evidence available cannot be considered as conclusive proof of the efficiency of the screening process. A better criterion is desirable--under the circumstances there is no way of knowing how well the unselected candidates might have done if allowed to attend The Basic School Course.

# CHAPTER III

## LEADERSHIP EVALUATION AND TRAINING AT THE BASIC SCHOOL (AUGUST 1945 TO FEBRUARY 1947)

General.--Officer Basic Training in the Marine Corps during World War II placed emphasis on the assessment features of leadership evaluation and training. As the war progressed and the quality of the candidates decreased the importance of effective evaluation increased. The effort to maintain the quality of Marine Corps junior officers resulted in exceptionally high attrition from the Platoon Commanders School during 1945 and 1946. The number of unsatisfactory students brought before retention review boards created extensive problems for those boards to analyze validly an uncoordinated mass of report chits written on the candidates during their participation in the training program. In the majority of cases the reports were vague and subjectively qualitative, offering practically no real picture of the candidates ability on any standardized scale. Reliable functioning as a member of a review board under these circumstances required the judgment of a Solomon.

Perhaps, at first glance, the problem may appear to be a simple one. It must be remembered however, that the training program during this period involved eight student battalions, each consisting of approximately 300 students, and each remaining in residence for the brief

period of sixteen weeks. It was obvious that some means of standardization had to be injected into the evaluating system in order to insure a degree of consistency in the assessment of candidates from the several battalions and to give the review boards more organized and concrete information on which to base their judgment. The procedure designed to provide greater organization of data and more quantitative determination of ratings will be discussed in some detail in the remainder of this chapter. The system as established by no means furnished all the answers and certainly from a scientific point of view needs much improvement. It represented no major changes in principle from the previous system. In many respects it was perhaps quite unwieldy as executed and the effort required to administer it was at times resented by a few members of the assessment staffs. Effective assessment cannot be obtained without effort however, and this was perhaps a normal reaction to a major modification in procedures. In any event a sales and training program was very helpful in reducing the problem. In Chapter IV the writer will offer statistics from a follow-up study based upon class leadership records and later records of performance on the job following graduation for students evaluated under the system. The writer is of the opinion that there is much that can be offered in support of such a numerical system, particularly if one of the objectives requires that a lineal ranking be accomplished for a large group. The fineness to which numerical scores can be assigned is, of course, open to debate and will undoubtedly

be affected by the type of testing to be included.

The Leadership Staff.--During the major part of the period in question leadership evaluation was conducted by a staff organized on a semi-regimental basis. The officer-in-charge of the student regiment held the rank of Lieutenant Colonel and was furnished one officer assistant, a regimental Sergeant Major, and limited clerical assistance for record purposes. His primary purpose was to supervise and coordinate the entire assessment program.

Each of the eight student battalions was supervised by a staff consisting of the officer-in-charge with rank of Major, an executive officer, and a battalion Sergeant Major with limited clerical assistance. The battalion commander and his staff were concerned with supervising the assessment procedures being conducted by the company and platoon officers. In addition the battalion staff was responsible for the internal administration of the students on its rolls, and their compliance with an exceedingly close schedule of classes, field problems, and drills, on time, in the proper uniform, and with the necessary equipment. All battalion commanders found it most desirable to take an active part in observing and reporting on borderline students as the correctness of final assessments was their responsibility. Their spare time was usually taken up in counseling interviews.

There were normally three companies in each student battalion. It was the responsibility of each company commander to supervise and

assist the platoon leaders of his company in their assessment duties. Each company commander took an active part in observing and reporting on the students in his company in addition to controlling the assignment of students to leadership jobs, coordinating curriculum activities, and supervising internal company administration.

The platoon leader was the key to the entire program. Its success was very much dependent on the interest, enthusiasm, and loyalty displayed by the platoon leader in carrying out the assessment procedures. He was primarily responsible that an accurate and effective file was maintained on each student assigned to him. It was his duty to both evaluate and develop student leadership qualities. The platoon leader usually supervised from 25 to 30 students and was a very busy man near the end of each grading period.

Induction of the Students.--The sixteen weeks of rugged basic training provided for in the curriculum involved numerous but unintentional hardships and frustrations for some of the students. For this reason every possible measure was taken during the induction period to eliminate confusion and start the student off in a receptive frame of mind. Each new student group was met at the train by its battalion staff on the morning of arrival. The barracks area, previously placed in order by the staff, was all ready to receive the new candidates after they had partaken of a hearty breakfast. A freshly-made bunk complete with name tag, assembled field equipment, personal locker, and a footlocker full of textbooks was ready for each new candidate.

The first day was generally devoted to the completion of remaining administrative details such as clothing issues, personal history questionnaires, orientation by the School Commanding Officer, and getting acquainted with the program and his platoon leader.

## Leadership Training

Objective.--The main endeavor of the leadership section during the sixteen week training period was to assist the candidate in recognizing the strength or weakness of certain inherent traits which he possessed, and through correction, orientation, guidance, interview, and example to aid him in developing his leadership qualities to a maximum degree commensurate with his capacity. Evaluation was based strictly on the trait approach, however, the demonstrated traits were measured in simulated real-life situations structured for training purposes.

Student Participation.--The leadership program provided student duty assignments ranging from squad leader to battalion commander in parades, combat field problems, and routine barracks administration. Student assignments were changed daily in an effort to give each student an opportunity to perform in various positions and levels of command responsibility. Although most field problems were semi-structured each student carried the authority essential to his position and was given considerable discretionary powers for planning and executing decisions

pertinent to his phase in a problem. Throughout the training program each student was observed and scored on the traits of leadership he displayed while participating in the activities both as a leader and a follower. In addition to providing a means for the students to demonstrate leadership potential each duty assignment gave him the opportunity to learn by doing. Principles learned in the classroom could be applied to quasi real-life situations.

Staff Counseling.--The counseling interview technique was used extensively as a training means to advise and guide the student in developing or correcting demonstrated characteristics. Interviews were conducted primarily by the responsible platoon leader but were closely supervised by battalion and company commanders who were also available for follow-up interviews on questionable cases. Interviews were conducted once every two week grading period as practicable. The time factor limited the extent to which each student could participate however, and the demands of evaluation required most concentration on borderline and unsatisfactory cases.

During the interview the student was briefed on the content of his assessment record. Evidence of good leadership performance received appropriate recognition. Those areas wherein assessment indicated a weakness were stressed and the student was counseled on the best approach he might take to improve himself or to balance his weakness by more effective application of his strong traits. If the student harbored any grievance with the training program and the existing condi-

tions the interview was an excellent medium through which they could be released. In this situation the leadership problem was reversed and it was the assessors chance to actually demonstrate good leadership techniques by successfully re-orienting the student's attitudes in a more cooperative direction.

Recognition by the student that he personally needed to improve in leadership was usually a difficult decision for him to accept. Many students took an antagonistic approach and it was sometimes difficult to change their attitude into one of cooperation and an endeavor to improve.

Academic Leadership Training.--Emphasis on training in technical subjects during World War II kept academic leadership instruction from its appropriate place in an already concentrated curriculum. The need for such a course of instruction became very apparent however, as the source of officer candidates was strained. The situational opportunity for a candidate to practice leadership was inherent in the established program and it was reasonably easy to determine from observation those candidates who possessed at least the basic factors of effective intelligence and other traits necessary to carry them through most practical situations. Perhaps, however, if the principles of practical leadership were taught in the classroom many candidates, who might be termed "slow starters," could be trained to recognize and correct their deficiencies more quickly through a better understanding of basic applied psychology as related to the social interactions involved in the

leadership act. A basic leadership course featuring instruction covering the practical leadership factors and a series of case problems for the student to solve through application of the principles learned was included in the curriculum during the spring of 1946. There is no information available on the affect this course had, if any, on leadership training. Unfortunately the classes from which data were gathered for the follow-up study covered in the next chapter originated too early to participate in the leadership course thereby precluding statistical conclusions.

## Mechanics of the Evaluation System

General.--As already indicated the evaluation system included certain procedures by means of which assessors attempted to determine whether or not students attending officer basic training possessed the necessary traits of leadership in the degree considered desirable for Marine Corps Officers. Evaluation centered around specific traits, perhaps selected with little scientific consideration, but which, none-the-less, were believed, through experience and practice, to be associated with leadership. These traits or qualities consisted of such items as attitude, attention to duty, cooperation, initiative, force, command presence, judgment, and intelligence. The students leadership grade was based on individual trait scores assigned by the assessing staff when evaluating demonstrated performance.

Staff Observation.--Observation was continuous and directed toward obtaining a mass of assessment data prepared by a large number of raters on each student. The battalion commander controlled student leadership assignments as well as the employment of the assessors. Considerable effort was made to insure a fair distribution of assignments among the students for reasons of the training features involved, however, effective evaluation many times dictated that certain students be placed in specific duties in order to obtain supporting evidence on previously assessed factors. Wherever evidence indicated questionable traits in a student additional assessors were assigned to confirm or disprove the conclusions. Academic staff members also participated as assessors during field problems which they conducted.

Although every student was not continuously performing in a key position of structured problems his reactions demonstrated in normal day to day social intercourse with his classmates were usually quite apparent. Indications from this source as well as the desire displayed to cooperate with associates in routine barracks administration and maintenance proved valuable in scoring individual characteristics.

Assessment scores were submitted on three types of prepared forms which could be conveniently carried in the pocket. Each form was designed to meet the needs of the particular performance being demonstrated. Forms for assessing leadership performance in field problems provided the assessor an opportunity to score each of the traits covered by the system. The traits were organized under three major headings:

attitude, troop leading, and intelligence, with a box for the assigned trait score and a space for a supporting description of the performance. Close order drill assessment forms included data pertinent to performance in that area. A general observation chit was also provided to meet the needs of a multitude of unstructured situations. It was intended primarily as an essay report form for general purposes so no provision was made for scoring specific traits. The assessor was required to indicate the trait or traits he was evaluating in this case along with the scores assigned. Scores from the assessment report forms were posted periodically on an evaluation chart, the mechanics of which will be discussed later.

Although carelessness in preparation was observed on occasions it was kept to a minimum through constant supervision and conference in regard to the problems of evaluation which faced the assessors.

The Evaluation Chart.--The evaluation chart as its name implies was a form on which individual trait scores were posted for evaluation purposes. It was designed to provide a mechanical means by which assessment scores could be compiled on a weighted basis into an overall leadership grade. A sample of the evaluation chart with an actual case recorded is shown in figure I.

The traits employed were organized into three major assessment areas: attitude, troop leading, and intelligence. Several of the traits were factors considered to be specific and appropriate to more than one area; note the placement of initiative under both attitude

STUDENT LEADERSHIP EVALUATION CHART--THE BASIC SCHOOL

NAME DOE, JOHN 2nd Pl. A Co. 3rd BSC. 1st Marine, U. S. Pl. Ldr.

| ATTITUDE WT. 3 | | | | | | | | | | | | TROOP LEADING WT. 3 | | | | | | | | | | | | INTELLIGENCE WT. 2 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ATTENTION TO DUTY | | | | COOPERATION | | | | INITIATIVE | | | | FORCE | | | | COMMAND PRESENCE | | | | JUDGMENT | | | | INITIATIVE | | | | JUDGMENT | | | | APPLICATION | | | | ACAO. |
| NO. | T.N. | GR. | TOTAL | NO. | T.N. | GR. | TOTAL | NO. | T.N. | GR. | TOTAL | NO. | T.N. | GR. | TOTAL | NO. | T.N. | GR. | TOTAL | NO. | T.N. | GR. | TOTAL | NO. | T.N. | GR. | TOTAL | NO. | T.N. | GR. | TOTAL | NO. | T.N. | GR. | TOTAL | |
| 3-1 | 1 | 75 | 75 | 3-2 | 1 | 75 | 75 | 3-3 | 1 | 75 | 75 | 3-1 | 1 | 70 | 70 | 3-2 | 1 | 70 | 70 | 3-3 | 1 | 70 | 70 | 3-1 | 1 | 70 | 70 | 3-3 | 1 | 75 | 75 | 3-1 | 1 | 74 | 74 | |
| 3-2 | 2 | 75 | 150 | 1-4 | 2 | 74 | 149 | 2-1 | 2 | 72 | 147 | 2-1 | 2 | 76 | 146 | 2-1 | 2 | 76 | 146 | 2-3 | 2 | 76 | 146 | 2-1 | 2 | 72 | 142 | 2-1 | 2 | 76 | 151 | 2-3 | 2 | 76 | 150 | |
| 1-4 | 3 | 75 | 225 | | | | | 3-2 | 3 | 73 | 220 | 3-2 | 3 | 73 | 219 | 3-4 | 3 | 73 | 219 | | | | | | | | | 3-4 | 3 | 75 | 226 | 3-2 | 3 | 73 | 223 | |
| | | | | | | | | 1-4 | 4 | 74 | 294 | | | | | | | | | | | | | | | | | 1-4 | 4 | 74 | 300 | | | | | |
| | | 75 | | | | 75 | | | | 74 | | | | 73 | | | | 73 | | | | 73 | | | | 72 | | | | 75 | | | | 73 | | 82 |
| 3-1 | 4 | 73 | 298 | 1-3 | 3 | 70 | 219 | 3-3 | 5 | 72 | 366 | 3-3 | 4 | 72 | 291 | 3-3 | 4 | 68 | 287 | | | | | | | | | 1-3 | 5 | 70 | 370 | 3-1 | 4 | 72 | 297 | |
| 1-3 | 5 | 70 | 368 | | | | | 1-3 | 6 | 70 | 436 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 74 | | | | 73 | | | | 73 | | | | 73 | | | | 72 | | | | 73 | | | | 72 | | | | 74 | | | | 74 | | 83 |
| 3-4 | 6 | 68 | 436 | 1-4 | 4 | 68 | 287 | 3-4 | 7 | 69 | 505 | 3-4 | 5 | 72 | 363 | 3-4 | 5 | 69 | 355 | 1-4 | 3 | 68 | 214 | 1-4 | 3 | 68 | 214 | 1-4 | 6 | 68 | 438 | 3-4 | 5 | 69 | 364 | |
| | | 73 | | | | 72 | | | | 72 | | | | 73 | | | | 71 | | | | 71 | | | | 73 | | | | 73 | | | | 73 | | 78 |
| 2-4 | 7 | 70 | 506 | 2-4 | 5 | 70 | 357 | 3-4 | 8 | 70 | 435 | 2-4 | 6 | 70 | 425 | 2-4 | 4 | 70 | 284 | 2-4 | 4 | 70 | 284 | 2-4 | 7 | 71 | 505 | 2-4 | 6 | 70 | 434 | | | | | |
| | | 72 | | | | 71 | | | | 72 | | | | 71 | | | | 71 | | | | 70 | | | | 73 | | | | 72 | | | | | | 77 |
| 2-3 | 8 | 69 | 574 | 2-4 | 6 | 69 | 426 | 3-3 | 9 | 71 | 506 | 3-4 | 7 | 70 | 495 | 2-3 | 5 | 70 | 354 | 3-4 | 5 | 70 | 354 | 3-4 | 8 | 64 | 572 | 3-3 | 7 | 69 | 498 | | | | | |
| | | 71 | | | | 69 | | | | 72 | | | | 71 | | | | 70 | | | | 71 | | | | 71 | | | | 72 | | | | | | 77 |
| 1-4 | 9 | 70 | 640 | 1-4 | 7 | 70 | 496 | 3-3 | 10 | 69 | 575 | 3-4 | 8 | 69 | 569 | 3-4 | 6 | 74 | 423 | 3-4 | 6 | 73 | 423 | 2-3 | 9 | 73 | 645 | 2-3 | 8 | 73 | 571 | | | | | |
| | | 69 | | | | 68 | | | | 71 | | | | 70 | | | | 71 | | | | 71 | | | | 71 | | | | 73 | | | | | | 77 |
| 2-4 | 10 | 67 | 707 | 2-4 | 8 | 67 | 563 | 3-4 | 11 | 68 | 643 | 2-4 | 9 | 69 | 638 | 2-4 | 7 | 69 | 492 | 2-4 | 7 | 69 | 492 | 2-4 | 10 | 70 | 715 | 2-4 | 9 | 71 | 644 | | | | | |
| | | 68 | | | | 66 | | | | 70 | | | | 69 | | | | 69 | | | | 69 | | | | 70 | | | | 72 | | | | | | 77 |
| 2-4 | 11 | 66 | 774 | 2-4 | 9 | 66 | 629 | 3-4 | 12 | 67 | 710 | 2-4 | 10 | 71 | 709 | 2-4 | 8 | 70 | 562 | 2-4 | 8 | 70 | 562 | 2-4 | 11 | 69 | 784 | 2-4 | 10 | 69 | 713 | | | | | |
| | | 68 | | | | 66 | | | | 70 | | | | 70 | | | | 70 | | | | 70 | | | | 70 | | | | 71 | | | | | | |

and troop leading, and judgment under troop leading and intelligence. The intelligence factor was supposedly influenced by effective intelligence demonstrated by good judgment in handling situations involving social interaction and by demonstrated achievement (periodic academic average) in academic courses. An assessment report, therefore, reflecting scores in both initiative and judgment might, depending on the performance involved, very well be posted in appropriate columns of all three major areas.

Column headings from left to right on the evaluation chart represented the chit number, the running total on the number of chits recorded, the grade assigned by each chit, and a running total of the assigned grades. Leadership scores were cumulative, all chits for each grading period being posted in the appropriate columns and the current score for each trait determined by dividing the running total grade by the total number of chits recorded in the trait column. The score for each of the three areas was the average of the trait scores listed therein. Final leadership grades were obtained by averaging the three major area scores weighted as follows: attitude wt. 3, troop leading wt. 5, and intelligence wt. 2. The assigned weights were arrived at by considering the recommendations of experienced Marine officers whose judgment was respected. The critical or passing score for leadership evaluation was established at 70%. Figure II represents the front side of the student record card on which a permanent record of the student's final leadership evaluation scores were

STUDENT RECORD CARD
THE BASIC SCHOOL
(Front)

3rd Basic School Class

NAME: [illegible], [illegible] RANK: Gy Sgt.

FROM: 1 August 1946 TO: 12 February 1947

Date of Birth 3 Nov. 1922
Married Yes
College Attended none
Years ____ Months ____
Degree ____

| | Not Observed | Unsatisfactory (Below 70%) | Fair (70-74.9%) | Good (75-79.9%) | Very Good (80-84.9%) | Excellent (85-89.9%) | Outstanding (90-100%) |
|---|---|---|---|---|---|---|---|
| Physical Fitness | | | | | | | |
| ATTITUDE (Average a,b,c) | | 67 | | | | | |
| a. Attention to Duty | | 66 | | | | | |
| b. Cooperation | | 66 | | | | | |
| c. Initiative | | 68 | | | | | |
| TROOP LEADING (Average a,b,c,d) | | | 70 | | | | |
| a. Force | | | 72 | | | | |
| b. Command Presence | | | 70 | | | | |
| c. Judgement | | | 74 | | | | |
| d. Initiative | | | 70 | | | | |
| INTELLIGENCE (Average a,b,c) | | | 72 | | | | |
| a. Judgement | | | 70 | | | | |
| b. Application | | 69 | | | | | |
| c. Academic Average (Average Subcourse Averages) | | | 77 | | | | |

1. Leadership Characteristics Average: Average of Attitude (Wt.3) Management (Wt.5) Intelligence (Wt.2) Passing 70% 69.5

2. Under War Conditions Would You:

| Particularly Desire | Be Glad | Be Willing | Prefer Not |
|---|---|---|---|
| | | | X |

To Have Him

This man failed in leadership. The Basic School was just a look to him. He made no effort to work until too late. He was shocked that he could fail.

/s/ W. A. Smith, Lt.Col. USMC
C.I.C. Student Battalion

PHOTOGRAPH

REMARKS

This man failed through lack of effort on his part despite many interviews to acquaint him with the precariousness of his situation.

/s/ J. W. James
Colonel, USMC
Commanding

FIGURE II

recorded for file. This example was prepared from an actual case record.

## The Board of Review

Deficient candidates were protected against possible malfunctioning of the evaluation procedures by having their cases reviewed by a board of three field officers convened by the Commanding Officer of the school at midterm and just prior to the graduation of each class.

The mission assigned the board was to investigate the marks and supporting records of each deficient candidate appearing before it in order to determine whether each candidate will (1) continue with his class (2) be turned back to a later class for further instruction (3) be dropped as a candidate (in the case of enlisted students) (4) be recommended for revokation of commission (in the case of officer students).

In arriving at its conclusions the board was authorized to interview any or all of the assessors involved and to question the candidate in regard to any feature which might aid in determining the cause of the deficiency. The board was authorized to assign new leadership grades whenever deemed appropriate. It was directed to give special consideration to the improvement factor whenever deficiencies in characteristics were considered susceptible to correction with experience, rather than a fundamental defect of character.

The report of the board when submitted to the convening authority contained a brief resume on each case with pertinent recommendations for its disposal.

In all cases final authority rested with the convening authority unless modified by higher headquarters.

## Limitations Affecting the System of Evaluation

General.--Numerous limitations were apparent in the leadership evaluation system as developed. In some respects the record keeping proved too complicated and detailed to be handled effectively by the platoon leaders in addition to their already extensive duties of observing, interviewing, and supervising the students. A statistical section on the regimental leadership staff for the specific purpose of posting and evaluating the assessment data would have been desirable. There is much work attached to any system of personnel evaluation however, and purely mechanical problems of this nature can always be reduced if the job is sufficiently important. In addition to these mechanical problems the system was also troubled with some of the psychological limitations usually inherent in most assessment procedures. Limitations of this latter type impose variables that influence the reliability of measurement and must be reduced to a minimum in order to produce results that are better than chance. A few of these limitations which affected the system under discussion will be reviewed brief-

ly in the following paragraphs.

The Rater.--Assessment of personnel is a specialized duty that logically requires considerable leadership experience, and training in the basic principles of psychological measurement. In most instances it was possible to accept or reject line officers for the leadership staff on the basis of leadership experience and ability as indicated in their record of field performance. It is quite unlikely however that many of those available would have possessed the desired psychological training if such had been made a prerequisite for the assignment.

It is only fair to state that in most cases the officers assigned to the leadership staff functioned with a great deal of interest and enthusiasm even though the duty was entirely different and much more difficult to perform properly than most had ever before experienced.

In retrospect it appears that very little consideration was given to analyzing the requirements of the duty in order to prepare proper man specifications on which to base the selection and assignment of assessor personnel.

The limitation imposed by the assignment of inexperienced assessors was reduced to some extent through staff conferences directed toward pointing out some of the assessment problems, and by supervised on-the-job training. The effectiveness of such methods was limited because not one member of the staff had any background training in the principles of scientific measurement.

The Rating System.--Assessment of performance based primarily on the trait approach to leadership evaluation yields very subjective information on the candidate. The assessed score tends to be influenced by the opinion and attitude of the individual rater at the time he makes his observation. Standards of accepted performance were never established in writing for each of the situational problems and consequently assessment among raters within battalions, and particularly between raters of different battalions, was bound to vary. Reliability of rating would possibly have improved if acceptable performance in each of the leadership problems could have been standardized for purposes of rating performance.

There was also a tendency for academic ability to influence assessment during structured field problems. It is perhaps not desirable to separate leadership assessment entirely from the ability to apply academic principles; none-the-less subjective assessment of traits demonstrated in a structured situation tends to be influenced by the student's knowledge and application of tactical principles.

A broad concept of the factors associated with leadership indicates certain limitations to the exclusive use of the trait approach. Situations created during the sixteen week training period provide numerous approaches from which to measure the many factors of leadership. By concentrating on the trait approach the system failed to specifically assess the student's ability to exercise the executive functions of planning, organizing, and controlling. It also failed

to provide a measure of his ability to understand and apply basic principles of applied psychology.

# CHAPTER IV

## STATISTICAL ANALYSIS OF THE ASSESSMENT SYSTEM

General.--A system of personnel evaluation is of little value as a scientific instrument unless it is capable of measuring to a reasonable degree that which it purports to measure. Thus the assessment procedures discussed in Chapter III are of little practical value unless it can be demonstrated that they possess sufficient validity to make them useful as predictors of leadership ability. In order to gain acceptance by the candidate being evaluated it is desirable that such procedures possess a certain degree of face validity. More important however, is the need for empirical validity, a relationship, expressed on a continuum from minus one through zero to plus one, between assessed capacity and later demonstrated ability as indicated through performance measured by some selected criterion. A positive validity coefficient will be obtained when those who score high during assessment also score high in the criterion measure. A negative coefficient results when those who score high during assessment score low in the criterion or vice versa. The statistical study presented in this chapter was undertaken to determine the relationship, if any, that exists between the leadership evaluation scores received by students during officer basic training and later demonstrated leadership performance. Statistical computations were made on several possible

predictors so that comparison could be made of the results.

Criterion Requirements.[1]--A criterion may be considered as a performance measure used as a standard in evaluating other measures. An acceptable criterion is a primary requisite to any research study conducted for the purpose of developing statistical data intended to influence acceptance or rejection of variables in a personnel program. Absolutely adequate criteria are not always readily available; sometimes it takes a period of years and a number of experimental studies before really acceptable criteria can be developed. The use of less acceptable criteria may be necessary under these circumstances in order to promote at least initial progress and development in personnel procedures. In developing the best available criterion for an existing situation the researcher must usually study the areas of performance to be included and select those factors which give the best evidence of satisfying the standards ordinarily applied to psychological measuring instruments. In accomplishing this he may often be influenced by the time factor in selecting a criterion which is immediately available in order that the study may progress.

There are three standard characteristics desirable in an acceptable criterion. First, it must be pertinent to the job for which prediction was made and should include all of the significant aspects of performance. Second, it must be capable of discriminating consistently be-

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[1]Naval Test and Research Staff, Personnel Research and Test Development in the Bureau of Naval Personnel, edited by Dewey B. Stuitt, LCDR, USNR. Princeton University Press: Princeton 1947, pp. 357-362.

tween different levels of performance. Third, it must discriminate measurable differences between individuals, groups, or situations which can be readily compared.

In order that a criterion be pertinent to the performance being studied it must evaluate only those qualities which are relevant to successful performance. For example, although a rating on how well a man gets along with his wife might prove useful as a predictor of leadership ability it would be irrelevant as a criterion measure for assessing that person's actual competence to lead troops. Extraneous variables not strictly bearing on job performance should be excluded from the criterion selected. On the other hand the criterion should measure a sufficient number of factors to insure comprehensive coverage of the performance being evaluated. Whether or not a criterion can be considered valid will depend to a great extent on the degree to which the factors of pertinence and comprehensiveness are present. In developing an original criterion this is usually a matter of judgment. Development of criterion measures which are pertinent, comprehensive, and acceptable to all interested parties generally requires careful definition of the area within which performance is to be measured, and the reduction of extraneous variables to a minimum.

A criterion that discriminates between various levels of performance must indicate, to a satisfactory degree, the differences in ability that exist between the individuals whose performance is being measured. Individual differences in ability are known to exist among people

and from a sufficiently large sample the distribution of success will generally follow a normal frequency curve. Whatever the measuring technique may be, if it is functioning effectively, it is reasonable to expect that the data it furnishes will distribute the personnel being evaluated along a similar curve. If for example, when using a rating scale technique, nearly all candidates being rated fall in the upper 10 or 20 percent it is evident that the measuring instrument lacks the ability to discriminate. A measuring instrument may be sensitive in discriminating between categories of success yet be so affected by chance errors due to inconsistency that the scores it produces are useless. These chance errors may arise from variations in the individual being measured, or the measuring and scoring procedures. If however, a criterion is reliable the affect of chance error on its power of discrimination will be reduced to a minimum.

Many personnel procedures involve comparisons to be made between individuals or groups of individuals who have been tested or rated at different times or under different situations. In order to compare individuals under these conditions the measuring instruments must possess a single set of reference meanings which can be applied to the assessment of performance. The variables used must be standardized as to meaning and interpretation regardless of the individuals being measured, the group to which he belongs, or the test or rater evaluating his performance.

Fitness Reports as the Selected Criterion.--The writer acknowl-

edges the undesirable features of ratings when used as criteria however, circumstances of time and the scope of this paper prevented additional research in establishing a more specific measure of leadership. The performance expected of junior officers on the job involves many facets of success. Until some multiple criterion of the specific performances associated with successful leadership is developed the approach to an acceptable criterion must therefore be general in nature and will probably reflect subjective acceptance or rejection of general ability by the rater.

The fitness report form in effect during the period covered in this study reflected the limited trait approach to measuring leadership ability. Unfortunately, due partly to this approach, the report is extremely general in nature and only indirectly pertinent to leadership as such. By reason of this general approach it is perhaps also more comprehensive than is desirable if the prediction of leadership alone is expected.

Fitness report ratings are only reasonably successful in meeting the standards of comparability desired in a criterion measure. Theoretically speaking they provide the necessary single set of reference meanings by virtue of instructions promulgated for their preparation. From a practical point of view however, there is no definite assurance that all raters will interpret the instructions in the same manner. Even though the instructors properly interpreted the definitions and instructions other variations such as (1) opportunity for observation,

(2) individual standards applied to observation, and (3) ability of the judges to make desired discriminations all operate to influence comparability standards. An attempt was made to minimize non-comparability for the criterion of this study by averaging ratings from a minimum of three reporting officers in each case.

In view of the fact that the other standards to be met by an acceptable criterion is a statistical concept, that quality of discrimination will be determined and discussed in the paragraphs on statistical analysis.

The fitness report data sheet used to record pertinent extracts from individual fitness reports on each case included in this study is shown by figure III. The form contains only those items from the fitness report which indicated any measurement of leadership or success on the job. It is subdivided into four major categories with possible maximum scores as follows: performance of duty (5), personal traits (5), commanding officer's preference (4), and general value to the service (5). The total score for any one fitness report was the summation of the four category scores and could not exceed nineteen. Extracts from the fitness reports in each case were transposed as numerical scores assigned in the relationships indicated by the numbers heading each column of the first two categories and the numbers related to each description in the last two. Final criterion scores in each category, including the summation score, were obtained by averaging separate scores from the fitness reports recorded in the case of each

# FITNESS REPORT DATA SHEET

NAME: _____ Period _____ to _____

| PERFORMANCE OF DUTY | N-0 | 0 | 1 | 2 | 3 | 4 | 5 | Av. |
|---|---|---|---|---|---|---|---|---|
| Regular Duties | | | | | | | | |
| Administrative Duties | | | | | | | | |
| Executive Duties | | | | | | | | |
| Handling Enlisted Men | | | | | | | | |
| Training Troops | | | | | | | | |

AVERAGE PERFORMANCE SCORE:

| PERSONAL TRAITS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Military Bearing and Neatness | | | | | | | | |
| Attention to Duty | | | | | | | | |
| Cooperation | | | | | | | | |
| Initiative | | | | | | | | |
| Intelligence | | | | | | | | |
| Judgement and Common Sense | | | | | | | | |
| Force | | | | | | | | |
| Leadership | | | | | | | | |
| Loyalty | | | | | | | | |

AVERAGE TRAIT SCORE:

Preference: 1. Not to have _____ 2. Willing _____ 3. Glad _____

4. Desire _____ Average Performance Score: _____

General Value to Service:

0. Unsatisfactory _____ 3. Very Good _____

1. Fair _____ 4. Excellent _____

2. Good _____ 5. Outstanding _____

Average General Value Score: _____

Summation of Criterion Score:

Performance _____

Traits _____

Preference _____

Gen. Value _____

Total Score: _____

Reporting Officer:

FIGURE III

individual.

In order to further standardize the criterion measurement and reduce extraneous variables the collection of criterion data was conducted in accordance with the following conditions:

1. At least three and not more than four fitness reports on each subject were used in computing final criterion values.

2. All criterion data were obtained from fitness reports submitted on performance which occurred during the period of not less than one nor more than three years following graduation from basic officer training.

3. Not more than one report was selected from any one reporting officer.

4. Only those reports covering a reasonable period of observation were included.

5. Wherever practicable the rank and experience of the rater were considered in selecting the reports to be used.

## Interpretation of Statistical Analysis

General.--The reader must be cautioned in studying this interpretation of statistical analysis to keep in mind two factors of considerable importance. First, that the raw data for this study were obtained by sampling methods which collected information on available cases of graduates who stood within the upper, middle, and lower 15%

of five different officer basic training classes, each ranked according to leadership evaluation scores. Information compiled in figures V, VI, VII, VIII, and IX is organized in accordance with the sampling areas and each area contains cases from each of the five student classes. Second, a possible trend will be noted in regard to relationships between OCT scores, academic average and leadership for each of the three groupings however, it is perhaps unwise to attach too much significance to these results because of the small number of cases for which OCT data were available and the negative critical ratios determined for OCT scores in figure VI.

Sampling involved the selection of cases from the several classes rather than one for two major reasons. First, the separate classes during the period covered were generally too small to furnish a sufficient number of cases in what could be considered the extremes and center groupings. Second, it was necessary that the area of selection be large enough to assure that an adequate amount of criterion data would be available after normal attrition had taken its toll following graduation. One advantage perhaps accrued from this procedure in that leadership evaluation scores were obtained from a number of assessor groups thereby offering prediction samples representative of the average evaluation standards rather than the standards of a specifically selected group of raters. This procedure perhaps also recognized, to some degree, the effect of the factor of rating reliability as it might influence prediction results. Obtaining predictor data

from the several classes should perhaps induce some conservatism into the computed correlations of validity. An effect of this nature has previously been noted in a study made on predicting success in twenty nursing schools for which disappointing correlations of from .26 to .50 were obtained. When the computations were based on one school at a time, validities jumped as high as .80 in one school and .77 in another. The author of the study traced the low correlations in the combined samples to variation in grading policies of the schools.[2]

The classes from which samples were collected for this study were generally quite comparable as attested by the data of figure IV. This feature should be helpful in minimizing any possible disadvantages that might occur from such a combination of groups tested under somewhat varying conditions.

Central Tendency, Variability, and Critical Ratios.--Figure V offers tabulated information which provides an indication of central tendency and variability of the data collected on the variables within the sampling area. In each of the upper, middle, and lower 1/3 groupings the column headed N lists the numbers of cases from which data were obtained; the column headed M contains the mean values of each variable for the cases involved; and the column headed with the Greek symbol "sigma" lists standard deviations from the mean value M

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[2] Lee J. Cronbach, Essentials of Psychological Testing, Harper & Brothers: New York (1949) p. 259.

| CLASS | ACADEMIC | LEADERSHIP EVAL. | TROOP TRAINING | STAFF FUNCTIONING |
|---|---|---|---|---|
| 16TH PCC | 78.66 | 77.83 | | |
| 17TH PCC | 77.47 | 76.02 | | |
| 1ST BASIC | 79.88 | 76.46 | 78.79 | |
| 2ND BASIC | 80.10 | 76.10 | 77.90 | 79.67 |
| 3RD BASIC | 79.35 | 76.26 | 80.40 | 80.80 |
| GROUP AVERAGE | 79.09 | 76.53 | 79.03 | 80.23 |

FIGURE IV

Comparison of class averages for groups from which sample cases were selected.

which will probably occur in a normal distribution. Figure VI lists the critical ratios that exist between sampling areas for each variable. Information from this latter figure will determine whether the difference between mean values of the variables in the three sampling areas is significant.

Examination of figure V shows a reduction of N for most variables from the upper to the lower groupings and a variation within each group for three specific predictor variables, OCT scores, troop training grade, and staff functioning grade. For example, academic average data was available on 44 cases in the upper group, 41 cases in the middle group, and 29 cases in the lower group. This reduction trend was due to rate of attrition in the different sampling areas following graduation. Variation within groups for certain predictor variables is represented by 16 cases for OCT score, 30 cases for troop training, and 24 cases for staff functioning in the upper group. This situation was a result of variations in the curriculum for the different classes. Mean values of M for all variables except OCT score show a tendency to decrease from the upper 15% to the lower 15% group; note values of M for leadership evaluation, 80.74 in the upper group, 76.83 in the middle group, and 72.72 in the lower group. A difference of this nature should normally be expected; however, the degree of difference will not be the same for all variables. Whether the difference between the means of the different groups is statistically significant can only be determined by a study of the critical ratios list-

| VARIABLE | CLASS STANDING BASED ON LEADERSHIP EVALUATION | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | UPPER 15% | | | MIDDLE 15% | | | LOWER 15% | | |
| | N | M | σ | N | M | σ | N | M | σ |
| PREDICTORS | | | | | | | | | |
| ACADEMIC AVERAGE | 44 | 82.18 | 3.67 | 41 | 79.50 | 3.74 | 29 | 77.63 | 3.73 |
| LEADERSHIP EVALUATION | 44 | 80.74 | 1.25 | 41 | 76.63 | 0.93 | 29 | 72.72 | 1.48 |
| GCT SCORE | 16 | 125.00 | 13.25 | 11 | 125.00 | 10.60 | 11 | 134.12 | 10.32 |
| TROUP TRAINING GRADE | 30 | 83.00 | 5.85 | 33 | 78.95 | 7.12 | 24 | 77.05 | 7.16 |
| STAFF FUNCTIONING GRADE | 24 | 84.48 | 4.68 | 26 | 82.90 | 5.04 | 16 | 74.60 | 12.75 |
| FITNESS REPORT CRITERION | | | | | | | | | |
| DUTY PERFORMANCE | 44 | 3.71 | 0.40 | 41 | 3.46 | 0.41 | 29 | 3.04 | 0.44 |
| PERSONAL TRAITS | 44 | 3.89 | 0.37 | 41 | 3.66 | 0.37 | 29 | 3.24 | 0.44 |
| CO'S PREFERENCE | 44 | 3.62 | 0.29 | 41 | 3.49 | 0.42 | 29 | 3.03 | 0.45 |
| GENERAL VALUE | 44 | 3.83 | 0.47 | 41 | 3.57 | 0.48 | 29 | 3.16 | 0.50 |
| TOTAL CRITERION SCORE | 44 | 15.01 | 1.39 | 41 | 14.18 | 1.64 | 29 | 12.40 | 1.75 |

FIGURE V

MEANS AND STANDARD DEVIATIONS

Basic Data: Available cases of Graduates within the upper, middle, and lower 15% of the 16th PCC, 17th PCC, 1st, 2nd, and 3rd Basic Classes based on Leadership Evaluation.

ed in figure VI. The value of M represents the point of central tendency or the point on the continuum about which all of the scores for the particular variable within each grouping tend to cluster. The extent of variance from the mean within which the other scores are likely to fall is determined by the standard deviation, sigma. When the statistical data follow the normal bell-shaped frequency curve the distribution will be such that 68% of the cases will fall in the area plus one and minus one sigma from the mean, and 96% will fall within plus two and minus two sigmas. The tendency seems to be for variability to increase from the upper to the lower sampling areas for the criterion; total criterion score shows sigmas from upper to lower sampling area to be 1.39, 1.64, and 1.75 respectively. Academic average, however, indicates a reverse of this with sigmas of 3.87, 3.74, and 3.73 while leadership evaluation is different than either criterion or academic average in that a sigma of .93 for the middle group thereof represents a trend toward considerable homogeneity in evaluation scores for the candidates of average leadership ability.

The values of the critical ratios tabulated in figure VI are adequate in the majority of cases to provide statistical significance at and better than the 1% level.[3] The difference between the means

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[3] Allen L. Edwards, Experimental Design in Psychological Research. Rinehart & Company: New York 1950. Table VI, Appendix p. 408. Table shows the critical ratios necessary to indicate significance at the 5% and 1% level for specified degrees of freedom. The degrees of freedom represented by a certain number of cases is found by the formula $N_1 + N_2 - 2$ in this situation.

| VARIABLE | UPPER-LOWER $\frac{M_U - M_L}{\sigma_{U-L}}$ | UPPER-MIDDLE $\frac{M_U - M_M}{\sigma_{U-M}}$ | MIDDLE-LOWER $\frac{M_M - M_L}{\sigma_{M-L}}$ |
|---|---|---|---|
| PREDICTORS | | | |
| ACADEMIC AVERAGE | 5.02 | 3.25 | 2.06 |
| LEADERSHIP EVALUATION | 24.08 | 16.47 | 13.22 |
| GCT SCORE | -2.01 | —— | -2.04 |
| TROOP TRAINING GRADE | 3.29 | 2.48 | .99 |
| STAFF FUNCTIONING GRADE | 3.13 | 1.15 | 2.62 |
| FITNESS REPORT CRITERION | | | |
| DUTY PERFORMANCE | 6.59 | 2.85 | 4.04 |
| PERSONAL TRAITS | 6.55 | 2.85 | 4.18 |
| CO'S PREFERENCE | 6.22 | 1.64 | 4.31 |
| GENERAL VALUE | 5.73 | 2.52 | 3.43 |
| TOTAL CRITERION SCORE | 6.75 | 2.51 | 4.30 |

FIGURE VI

CRITICAL RATIOS

Basic Data: Means and Standard Deviations for variables from available cases of Graduates within the upper, middle, and lower 15% of the 16th PCC, 17th PCC, 1st, 2nd, and 3rd Basic Classes based on Leadership Evaluation.

for GCT scores however is definitely insignificant (critical ratios -2.01, _____, and -2.04) and consequently their value as predictors in this study is extremely limited. Critical ratios of .99 between the middle and lower groups for troop training, and of 1.15 and 1.64 between the upper and middle groups for staff functioning and CO's preferance respectively, fail to indicate significance at even the 5% level so therefore those variables in the areas indicated can be rejected from statistical consideration in this study. Critical ratios, representing a significance level between 1% and 5%, were found to be 2.48 and 2.52 respectively for troop training and general value means (M) between the upper and middle groups, and 2.06 and 2.62 respectively for academic average and staff functioning means (M) between the middle and lower groups.

It seems reasonable to conclude from the significance level of 1% or better found for most variables of the criterion that it meets the necessary standards of discrimination between sampling areas for purposes of this study.

Relationships Between Variables.--Relationships between variables within each of the separate sampling areas offers an indication of possible trends as they might be affected by quality of leadership. Although the correlations presenting the picture tabulated in figures VII, VIII, and IX are rather small they none-the-less point up certain factors that may be meaningful. Over-all relationships between predictors and total criterion score as established in figures X through XII

for the combined groups show more decisive correlations and will be discussed separately. Considering first, the intercorrelations between predictors for the three leadership areas we find low intercorrelations of approximately .15 between leadership evaluation and academic average in the upper and middle groups indicating very little of common measurement between the two in these areas. In the lower leadership grouping however, the relationship seems to be greater with the intercorrelations rising to .32. It is difficult to draw any well defined conclusions from this trend, however, two possibilities seem reasonable. First, the rating officers have knowledge of the students' academic grades and may be influenced by them to some degree in assessing leadership ability in the lower group. Second, the effective intelligence of candidates in the lower group may perhaps bear a positive relationship with abstract intelligence for academic accomplishment and consequently is approaching the minimum desirable for effective leadership at the level with which we are concerned. As a result both leadership evaluation and academic grades for individuals in this latter sampling area tend to approach the critical score in each case thereby contributing to higher intercorrelation between the two.

OCT scores tend toward higher intercorrelation (.64 and .29 respectively) with academics and leadership in the middle group than with these same variables in the extremes. Intercorrelations for OCT with academics and leadership evaluation in the upper group were only .03 and .08 respectively while for the lower group they were .17 and -.16. The read-

er is once more cautioned that, for reasons previously indicated, full acceptance of the trend in GCT relationships produced by this study is not recommended.

Troop training grades appear to have a fairly high relationship to academic average for both the upper group (.58) and the lower group (.50) while for the middle leadership group the intercorrelation drops to .28. This trend gives some indication that achievement in the teaching area is equally representative of academic ability in both the upper and lower groups but less so in the middle group. A similar trend is apparent between troop training and leadership evaluation except the relationships are not so pronounced. Achievement in leadership evaluation seems to offer a slightly greater reflection of teaching knowledge in the upper group (.23) than in the lower group (.17). The same intercorrelation for the middle group is about equal in degree (-.16) but negative in direction. As a predictor of performance measured by the criterion used in this study the troop training grade has little to offer as indicated by small correlations of -.02, .02, and -.04 respectively from the upper to the lower leadership group.

Relationships between staff functioning grades and academic average and leadership evaluation show a somewhat different trend than presented by intercorrelations for troop training. Intercorrelations between staff functioning grades and academic average show a similar trend of smaller relationship in the middle group than for the extremes (upper .38, middle .09, lower .73) but the relationship is considerably higher

in the lower group than in the upper group. This offers some indication that perhaps achievement in the type of study represented by the staff functioning course bears a closer relationship to average academic ability in the lower group than in either of the other two. The relationship trend between staff functioning grades and leadership evaluation is represented by increasing intercorrelations (.04, .21, .61) from the upper to the lower leadership groupings. This trend appears to be a strong indication that those who score low in leadership evaluation are quite likely also to score low in a subject of the staff functioning and organization type. It must be admitted that a share of this trend is no doubt due to the influence of academic ability, however, if that were the only factor involved it would seem that a similar strong trend would also appear in the intercorrelations of the troop training grade. Staff functioning grades, as predictors of performance measured by the criterion of this study, offer correlations within each group which are comparable in degree to those indicated for leadership evaluation (upper.14, middle -.19, lower -.23) even though the relationship in the middle group differs in sign.

Results obtained seem to indicate a relationship between certain type courses that develop or measure a knowledge of teaching and organizational principles and leadership evaluation during the training program. Knowledge of organizational principles seems to have more bearing on leadership ability or performance measured by the criterion of this study than does a knowledge of teaching techniques. In neither

case however, does the criterion used offer a very pertinent means of indicating a measure of performance for either of these fields. It is therefore quite possible that limitations of the criterion preclude higher validity coefficients relative to troop training and staff functioning grades as predictors. The writer believes that the subjects in question might prove more sensitive to leadership ability if they were made a part of an over-all leadership subcourse and better adjusted to include basic instruction in organization and executive leadership functions, and a closer coordination between the mechanical steps of the teaching process and the stimulation required by the leader as a teacher.

Study of the intercorrelations between criterion variables in each of the sampling areas indicates a very strong trend toward the well known "halo effect" in which scoring has been seriously influenced by general impression. Figures VII, VIII, and IX indicate that the highest intercorrelations are between the total criterion score and the other criterion variables for all sampling areas; for each sampling area these are, upper .94, .96, .77, .97; middle .95, .97, .92, .98; lower .96, .96, .91, .97. This being the case it is logical to employ only the total criterion score as the accepted criterion measure because it gives the best representation of all the other variables.

The most significant question to be answered if possible by interpretation of these data is a comparison of leadership evaluation and academic average as predictors of acceptance on the job in junior offi-

| VARIABLES | PREDICTORS | ACADEMIC AVERAGE | LEADERSHIP EVALUATION | GCT SCORE | TROOP TRAINING GRADE | STAFF FUNCTIONING GRADE | FITNESS REPORT CRITERION | DUTY PERFORMANCE | PERSONAL TRAITS | CO'S PREFERENCE | GENERAL VALUE | TOTAL CRITERION SCORE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PREDICTORS | | | | | | | | | | | | |
| ACADEMIC AVERAGE | | | | | | | | | | | | |
| LEADERSHIP EVALUATION | | .16 | | | | | | | | | | |
| GCT SCORE | | .03 | .08 | | | | | | | | | |
| TROOP TRAINING GRADE | | .58 | .23 | | | | | | | | | |
| STAFF FUNCTIONING GRADE | | .38 | .04 | | | | | | | | | |
| FITNESS REPORT CRITERION | | | | | | | | | | | | |
| DUTY PERFORMANCE | | .04 | .14 | | | | | | | | | |
| PERSONAL TRAITS | | .06 | .22 | | | | | .91 | | | | |
| CO'S PREFERENCE | | .05 | .21 | | | | | .58 | .63 | | | |
| GENERAL VALUE | | .12 | .29 | | | | | .89 | .92 | .68 | | |
| TOTAL CRITERION SCORE | | .08 | .24 | -.11 | -.02 | .14 | | .94 | .96 | .77 | .97 | |

FIGURE VII

CORRELATION BETWEEN VARIABLES FOR CASES FROM UPPER 15%

Basic Data: Variables from available cases of graduates within the upper 15% of the 16th PCC, 17th PCC, 1st, 2nd, and 3rd Basic Classes based on leadership evaluation.

| VARIABLES | PREDICTORS | ACADEMIC AVERAGE | LEADERSHIP EVALUATION | GCT SCORE | TROOP TRAINING GRADE | STAFF FUNCTIONING GRADE | FITNESS REPORT CRITERION | DUTY PERFORMANCE | PERSONAL TRAITS | CO'S PREFERENCE | GENERAL VALUE | TOTAL CRITERION SCORE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PREDICTORS | | | | | | | | | | | | |
| ACADEMIC AVERAGE | | | | | | | | | | | | |
| LEADERSHIP EVALUATION | | .15 | | | | | | | | | | |
| GCT SCORE | | .64 | .29 | | | | | | | | | |
| TROOP TRAINING GRADE | | .28 | -.16 | | | | | | | | | |
| STAFF FUNCTIONING GRADE | | .09 | .21 | | | | | | | | | |
| FITNESS REPORT CRITERION | | | | | | | | | | | | |
| DUTY PERFORMANCE | | .19 | .16 | | | | | | | | | |
| PERSONAL TRAITS | | .18 | .22 | | | | | .92 | | | | |
| CO'S PREFERENCE | | .25 | .13 | | | | | .82 | .84 | | | |
| GENERAL VALUE | | .16 | .21 | | | | | .91 | .95 | .87 | | |
| TOTAL CRITERION SCORE | | .20 | .19 | .10 | .02 | -.19 | | .95 | .97 | .92 | .98 | |

FIGURE VIII

CORRELATION BETWEEN VARIABLES FOR CASES FROM MIDDLE 15%

Basic Data: Variables from available cases of graduates within the middle 15% of the 16th PCC, 17th PCC, 1st, 2nd, and 3rd Basic Classes based on leadership evaluation.

| VARIABLES | PREDICTORS | ACADEMIC AVERAGE | LEADERSHIP EVALUATION | GCT SCORE | TROOP TRAINING GRADE | STAFF FUNCTIONING GRADE | FITNESS REPORT CRITERION | DUTY PERFORMANCE | PERSONAL TRAITS | CO'S PREFERENCE | GENERAL VALUE | TOTAL CRITERION SCORE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PREDICTORS | | | | | | | | | | | | |
| ACADEMIC AVERAGE | | | | | | | | | | | | |
| LEADERSHIP EVALUATION | .32 | | | | | | | | | | | |
| GCT SCORE | .17 | -.16 | | | | | | | | | | |
| TROOP TRAINING GRADE | .50 | .17 | | | | | | | | | | |
| STAFF FUNCTIONING GRADE | .73 | .61 | | | | | | | | | | |
| FITNESS REPORT CRITERION | | | | | | | | | | | | |
| DUTY PERFORMANCE | -.46 | -.16 | | | | | | | | | | |
| PERSONAL TRAITS | -.55 | -.10 | | | | | | .91 | | | | |
| CO'S PREFERENCE | -.50 | -.29 | | | | | | .84 | .80 | | | |
| GENERAL VALUE | -.56 | -.17 | | | | | | .92 | .95 | .81 | | |
| TOTAL CRITERION SCORE | -.54 | -.19 | -.28 | -.04 | -.23 | | | .96 | .96 | .91 | .97 | |

FIGURE IX

CORRELATION BETWEEN VARIABLES FOR CASES FROM LOWER 15%

Basic Data: Variables from available cases of graduates within the lower 15% of the 16th PCC, 17th PCC, 1st, 2nd, and 3rd Basic Classes based on leadership evaluation.

cer duty assignments. Considering each group in turn we find for the upper group, representing those evaluated highest in leadership potential, that the correlation between academic average and the criterion is practically negligible (.08) and much lower than that between leadership evaluation and the criterion (.24). Remembering the relatively small (.16) intercorrelation between leadership evaluation and academic average for this group it seems reasonable to conclude two things. First, that leadership and academic or abstract intelligence represent two different factors on the junior officer level and have little in common. Second, that the performance of duty on the junior officer level is affected more by leadership ability than abstract or academic intelligence; those possessing good leadership ability with the requisite effective intelligence have a better chance of succeeding in the lower rank levels than those who possess only academic abilities.

In the middle group, representing those of average leadership ability, we find a normal and expected condition. Correlations with the criterion for both academic average (.20) and leadership evaluation (.19) are practically the same. Here again, the low intercorrelation (.15) between academic average and leadership evaluation indicate the existence of two separate factors. The relationship of these two factors however, is in better equilibrium for members of this average group and they perhaps are equally dependent on the two in accomplishing their duty assignment.

A somewhat peculiar or unusual situation seems to occur in the

group evaluated lowest for leadership ability in that correlations for both leadership and academic average with the criterion are negative, -.19 and -.54 respectively. Close study offers some possible conclusions however, that make the situation actually less peculiar than indicated at first glance. This particular group of officers, although they successfully qualified in leadership ability, generally represented cases which approached the borderline in critical leadership evaluation score. Many of them had demonstrated at one time or another during the training period certain qualities which evidenced unsatisfactory leadership. They perhaps also represented a group of "slow starters" who needed experience to bring out latent abilities. Initial impression and the "halo effect" may have made it quite difficult for students in this category to overcome a few unsatisfactory performances which possibly occurred during the early phase of evaluation. Sixteen weeks of observation, although adequate to move these students into the satisfactory bracket is perhaps too limited to establish them at the proper level of their performance potential. This feature of the system as well as the possible forcing of assessments that may occur in this area in an attempt to be more certain of results could very well account for the small negative correlation between leadership evaluation and the criterion. The considerably greater significant difference, as indicated by critical ratios, in the means for leadership evaluation as compared to the means for total criterion score seems to express a trend toward less variability of the extreme

groups from an over-all average in criterion markings thereby indicating that perhaps the direction taken by the negative correlation is more generally one in which the person evaluated in the lower leadership group is actually performing his assignment in a better manner than had been predicted.

A most important feature to consider is the relatively high negative correlation between academic average and the criterion in the case of this lower group. It offers another very strong indication of the greater need for leadership ability rather than academic or abstract ability for acceptable performance of duty in the lower rank echelons. The negative correlation of -.54 between academic average and the criterion for a group representing low measured leadership ability is a strong indication that academic ability alone contributes very little to successful military performance at this level.

The conclusions determined from a study and comparison of the correlations with the criterion for both leadership evaluation and academic average seem to support the following hypothesis. Leadership ability is more important to acceptable performance of duty at the junior officer level than is academic ability.

Let us now examine the correlations between predictors and the total criterion score determined for the combined groups. The cases in this situation are 114 in number. Figure X illustrates these correlations in tabular form and figures XI, and XII illustrate them graphically by scores on a scatter diagram. Criterion scores for the

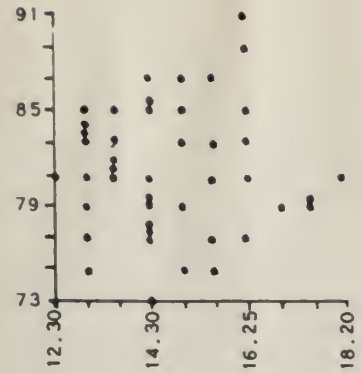
| PREDICTOR VARIABLES | FITNESS REPORT CRITERION |
|---|---|
| ACADEMIC AVERAGE | .15 |
| LEADERSHIP EVALUATION | .50 |
| GCT SCORE | -.30 |
| TROOP TRAINING GRADE | .12 |
| STAFF FUNCTIONING GRADE | .08 |

FIGURE I

OVER-ALL CORRELATION BETWEEN PREDICTORS AND CRITERION SCORE

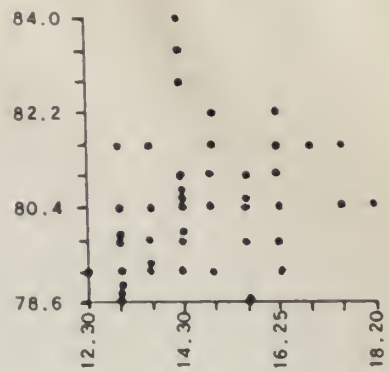
Basic Data: Predictor and Total Criterion Scores from available cases of Graduates within the combined upper, middle, and lower 15% of the 16th PCC, 17th PCC, 1st, 2nd, and 3rd Basic Classes based on leadership evaluation.

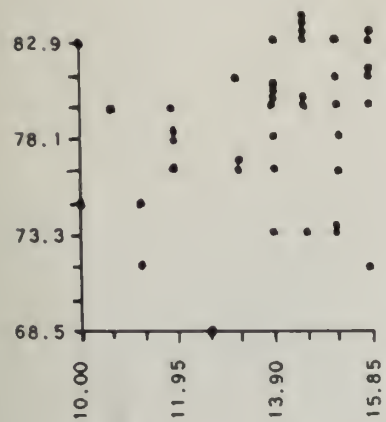
ACADEMIC AVER. VS TOTAL CRITERION




(A)
UPPER 15%

LEADERSHIP EVAL. VS TOTAL CRITERION




(B)
MIDDLE 15%

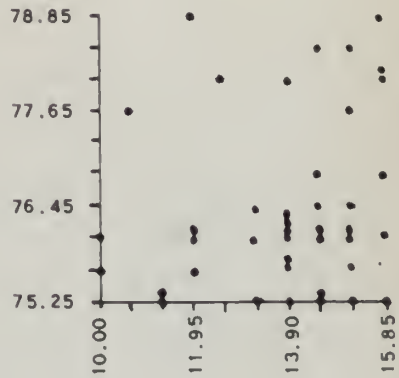
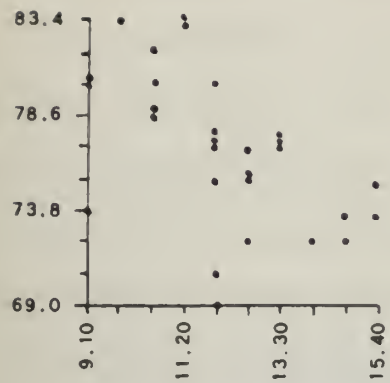



FIGURE XI

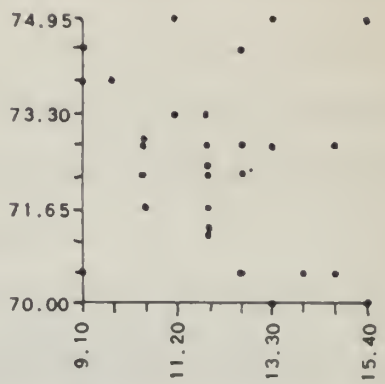
SCATTER DIAGRAMS

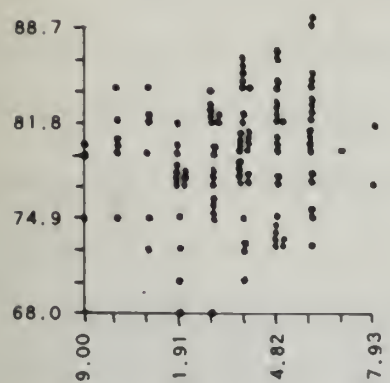
ACADEMIC AVER. VS TOTAL CRITERION




(C)
LOWER 15%

LEADERSHIP EVAL. VS TOTAL CRITERION




(D)
COMBINED
CASES

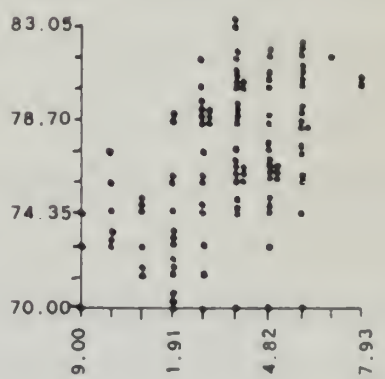



FIGURE XII

SCATTER DIAGRAMS

scatter diagrams are represented on the abcissa or horizontal axis in all cases. It is perhaps well to make note here that correlations in a selected group such as we find in this study are smaller than in a group containing a wider range of ability.[4] On this basis and by comparison with correlations determined by other studies on subjects within the same general area it seems reasonable to accept the correlation of .50 between leadership evaluation under the system being examined and the criterion of acceptable performance of duty as very significant. Significance at the 1% level for this number of cases (114) requires a correlation r of only .24, and at the 5% level an r of .183.[5] The correlation of .15 for academic average and the criterion does not therefore meet the requirements for even the 5% level of significance and cannot be granted much credence. In comparison then, leadership assessment by the system under evaluation is a considerably better predictor of acceptable future performance in the junior officer level than is academic ability. Whether this holds true for higher rank echelons cannot be stated here as it is obviously the subject of another study.

Attrition Within Sampling Areas.--The attrition within sampling areas from the date of graduation for each class involved to January

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[4]Cronbach, op. cit., p. 99.

[5]Edwards, loc. cit.

1951, when the data for this study was collected, is tabulated in figure XIII. This information seems to give particularly strong support to the prediction of leadership ability, under the system employed during the training period, as it compares with the performance of duty measured by the criterion in this study. The data indicates a very definite trend of increasing attrition from the group evaluated high in leadership ability to the one evaluated at the other extreme. A comparison of attrition percentages reflects a much greater differential between the middle (30.5%) and lower (50.8%) group than between the upper (25.4%) and middle (30.5%) group. Some normal attrition is expected but the very high figure of 50.8% for the lower group must very likely be influenced by such factors as lack of leadership ability, dissatisfaction, inaptitude for the service, etc. That the classes involved represent groups trained near the end of and following a war has perhaps caused greater attrition than normal, however, this fact has little significance when the question involved is a comparison of groups possessing unequal leadership ability, all three of which were subjected to the same forces which might have a bearing on the attrition problem.

## Summary of Findings

The following findings based on the interpretation of the statistical analysis appear reasonable.

| TRAINING GROUP | | AVAILABILITY AND ATTRITION WITHIN SAMPLING AREAS | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | UPPER 15% | | | | MIDDLE 15% | | | | LOWER 15% | | | |
| CLASS | DATE GRADUATED | AVAILABLE PREDICTOR CASES | AVAILABLE CRITERION CASES | DIFFERENCE | %ATTRITION | AVAILABLE PREDICTOR CASES | AVAILABLE CRITERION CASES | DIFFERENCE | %ATTRITION | AVAILABLE PREDICTOR CASES | AVAILABLE CRITERION CASES | DIFFERENCE | %ATTRITION |
| 16TH PCC | NOV. '45 | 13 | 9 | 4 | 30.75 | 13 | 3 | 10 | 76.9 | 13 | 3 | 10 | 76.9 |
| 17TH PCC | DEC. '45 | 7 | 5 | 2 | 28.6 | 7 | 5 | 2 | 28.6 | 7 | 2 | 5 | 71.4 |
| 1ST BASIC | MAR. '46 | 7 | 6 | 1 | 14.3 | 7 | 7 | 0 | 00 | 7 | 6 | 1 | 14.3 |
| 2ND BASIC | OCT. '46 | 8 | 6 | 2 | 25.0 | 8 | 7 | 1 | 12.5 | 8 | 5 | 3 | 37.5 |
| 3RD BASIC | FEB. '47 | 24 | 18 | 6 | 25.0 | 24 | 19 | 5 | 20.8 | 24 | 13 | 11 | 45.8 |
| TOTAL | | 59 | 44 | 15 | 25.4 | 59 | 41 | 18 | 30.5 | 59 | 29 | 30 | 50.8 |

FIGURE XIII

Attrition During Period from Graduation to January 1951

1. The validity of the leadership assessment procedures under examination, when measured by the particular criterion employed in this study, is very significant.

2. At the junior officer level, leadership assessment provides a better prediction of acceptable performance than do academic average or measures of general intelligence.

3. Leadership ability and academic intelligence do not necessarily have much in common at the junior officer level. Acceptable performance of duty at this level is more dependent on leadership ability than on academic achievement.

4. Grades from the troop training and staff functioning courses may be sufficiently related to evaluated leadership ability in the case of the extremes, and the lower leadership group in particular, to suggest that a knowledge of the type of subject matter taught in those courses will have a direct effect on leadership ability and that the teaching process and theory of organization and operation, represented to some degree by those courses, are important factors to be associated with any leadership training program.

# CHAPTER V

## DISCUSSION

General.--One basic assumption was made in this study and supported by evidence furnished in Chapter I. This assumption was that the sources and requirements for initial selection of candidates for officer basic training in the Marine Corps provided reasonable discrimination between qualified and unqualified candidates, and that those selected for such training could be considered a select group possessing potential leadership ability. This assumption, as such, will probably hold true as long as the supply and demand factors are in balance. The writer suggests however, that wartime conditions may dictate a relaxation of the academic achievement requirement for initial selection in order to produce the desired number of candidates. If such be the case it might prove profitable to introduce the situational screening process into the initial selection phase in view of its apparent success in screening enlisted candidates for the 1950 Basic School Class.

The primary purpose of this study was to determine whether or not the assessment procedures under examination provided adequate leadership training and valid evaluation concurrent with the academic program. Chapter IV established certain findings, based upon an interpretation of the statistical analysis, which will not be repeated here.

The writer proposes herein to offer additional conclusions based upon the research material presented in Chapter II, and to suggest, where considered practicable, means for improving the leadership training and assessment program described in Chapter III.

General Conclusions.--Consideration of the material presented in Chapter II suggests the following:

1. Experience of others indicates that leadership ability and teaching ability complement each other in the performance of duty and should be closely related in any leadership training program.

2. Consideration should be given to certain principles set forth on page 42 of this study when designing assessment procedures. In general, assessment procedures should be designed with a specific measurement objective in mind. The variables to be measured must be based on the particular requirements determined to be involved in the future assignments for which the candidate is being assessed. If the type problem to be used is influenced by the demands of academic training however, the approach is usually reversed and the objectives of assessment will have to be determined through job analysis of the measuring situation to find out exactly what factors can be evaluated.

3. Wherever practicable it is desirable to employ a multiple measurement approach in assessing leadership qualities. That is, a quality of leadership should be evaluated by more than one measuring instrument whenever more than one technique is available. The trait approach only, as used by the system under examination, is too limited

in scope and fails to consider many important factors associated with leadership ability.

4. The results obtained by any leadership assessment and training program are dependent upon the ability of each individual assessor. It is desirable that selection of assessor personnel be based on man specifications considered desirable for such an assignment.

5. The design of a military leadership assessment and training program might well be based on the premise that, the executive activities of planning, organizing, and controlling appropriately applied, and reinforced by an understanding of the principles of basic psychology and skillfull manipulation of a personal behavior pattern equivalent to the situation are fundamental to any act of good leadership.

6. Scientific analysis provided by follow-up studies such as this is the only logical approach for determining the validity of evaluation and training procedures. This particular study suggests many areas for further investigation. One study however, is not enough. Continuous research using better criteria is suggested to insure progress in developing the personnel procedures discussed herein.

## Suggestions for Improvement

General.--Research has indicated that the leadership act is influenced through variable forces affected by the leader, the followers, and the particular situation in which the activity occurs. Economy of

time and training facilities require that consideration of the leadership situation be generally broad in scope. The program cannot primarily provide for specific leadership situations. It must consider the military service as a general situation in which leadership acts occur. By thus circumscribing the situational area to be recognized some reduction or generalization of variables can be obtained.

A desirable leadership training program at the officer basic training level will generally consist of two major elements designed to provide the instruction necessary for developing and assessing leadership ability. The elements are generally best employed concurrently, the first offering the student an opportunity to learn fundamental principles of executive action and clear thinking, the means by which people are motivated, and the complimentary aspects of teaching ability and leadership. The second element must provide a means by which the student can demonstrate and develop the dynamics of his personal behavior pattern in applying the functions fundamental to his leadership acts.

In view of the scope and importance of the factors involved in leadership evaluation and training it is suggested that any leadership program be given the status of a subcourse of the curriculum in order that all elements pertaining to leadership can be better related as factors and functions associated with leadership development. In this respect it is further suggested that expanded versions of courses such as the Troop Training course and Staff Functioning course be made a part of the leadership subcourse because of their close relationship

and application to factors in the leadership act.

Academic Leadership Training.--The following academic features are suggested for consideration and possible inclusion when designing a military leadership subcourse.

1. Theory of Organization and Operation.--An expanded version of a general Staff Organization and Functioning course to provide additional and more specific instruction in regard to the relationships certain factors such as responsibility and delegation of authority; executive functions of planning, organizing, and controlling; effect of policy and procedures on morale; and the scientific method of approaching and solving executive or leadership problems have with effective performance of leadership acts.

2. Essentials of Psychology.--A course to provide training in the fundamental principles of motivation; the principle of individual differences as related to capacity for performance; human relations and group processes; personality traits and behavior patterns; and other essentials of basic psychology.

3. The Learning Process.--An expanded version of a general Troop Training or Technique of Instruction course offering additional instruction in regard to the application and need for leadership in teaching to provide the necessary stimulus or dynamogenic effect that will promote learning. The complimentary effect which leadership and teaching ability have on each other in producing better administrative and operational performance should be made clear to the student.

4. Situational Case Problems.--Problems of a paper-pencil type which can be used as exercises for the student to apply leadership principles learned. Such problems should be pointed specifically at the small unit level and involve both administrative and tactical leadership requirements. By means of these exercises the student can also practice the scientific method of approach for problem solving.

Leadership Evaluation.--The following suggestions are offered for improving the assessment system set forth in Chapter III of this study.

1. Expand the base of assessment so that evaluation is not limited to the trait approach. Several possible means for improving the evaluation base are indicated below:

a. Determine the leadership factors which are essential to assess, by establishing the critical requirements that any junior officer must be capable of performing. Flanagan defines a critical requirement as follows:[1]

> . . . a requirement which is crucial in the sense that it has been responsible for outstandingly effective or definitely unsatisfactory performance of an important part of the job or activity in question.

He also suggests that some critical requirements can be expressed in

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[1]John C. Flanagan, "Critical Requirements: A new approach to employee evaluation," Personnel Psychology, 1949, 2, p. 420.

terms of aptitude, training, information, attitudes, habits, skills, and abilities as well as behavior patterns. These however must generally be based on inferences or hypotheses. When critical requirements have been established the next step is to design appropriate measuring instruments by which the student can demonstrate his capacity to meet them.

b. Examine existing situational problems, whether structured or unstructured, to determine all of the possible critical incidents which will serve as a measure of each candidate's leadership ability when he is subjected to the situations provided in those problems. When such factors have been isolated they should be operationally stated and included on the assessor report form. Flanagan's article, "Critical Requirements: A new approach to employee evaluation" indicates that five specific conditions must be satisfied when establishing critical requirements of this nature:[2]

> It is essential that actual observations be made of the on-the-job activity and the product of such activity.
>
> The aims and objectives of the activity must be known to the observer . . . to indentify success or failure . . . .
>
> The basis for the specific judgment to be made by the observer must be clearly defined . . . . All observers must have the same criteria for judging satisfactoriness . . . .

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[2] Flanagan, op. cit., p. 421.

> The observer must be qualified to make judgments regarding the activity observed . . . .
>
> . . . the situation be such that reporting is accurate . . . the observer's attention be directed to the essential aspects of the behavior being observed.

c. Consider the use of all recognized measurement techniques wherever they may be practicable to insure a multi-directional approach. Sociometric questionaires, and special interviews are suggested as two additional type techniques. Perhaps the sociometric technique could be employed as a means to obtain additional information on candidates engaged in situational field problems for which qualities of cooperation, attitude, and other behavior traits determine successful teamwork. Several important contributions might be made to the leadership program if some assessment by students could be made a part of the situational measurement program. First, students performing in isolated areas not directly under observation by a staff assessor might be better motivated if they knew that their behavior patterns were being assessed by associates. Second, the multiplicity of raters, a feature of the sociometric technique, would provide more comprehensive coverage and possibly complete some of the undesirable gaps in assessment data. Third, each student would be gaining valuable experience in rating methods, a problem that he will be faced with throughout his career.

2. Standardize assessment values among raters for each situational problem. When the factors of leadership to be measured have

been determined by job analysis techniques they can be operationally stated by degree of acceptable performance for scoring purposes. Standards of minimum acceptable performance, prepared as job descriptions and published for the training of all raters, would provide a standard point of departure from which to gauge markings.

3. Analyze the leadership traits currently being measured in the evaluation program in the light of critical requirements and the traits found to be associated with leadership in the survey conducted by Stogdill.

Educational Aspects.--In view of the significance indicated for the studied system of leadership evaluation as a predictor of acceptable performance at the junior officer level the suggestion is offered that perhaps academic grades need not be considered in determining relative standing upon graduation from officer basic training. If the major purpose in training a select group of this nature is to promote learning and insure that all students are brought above a prescribed minimum level thereof, and is not primarily one of selection, such a suggestion may not be amiss and might prove an advantage in the learning process. Learning is not always favorably influenced by excessive individual competition, nor does individual competition promote desire for cooperation or teamwork, factors essential in any military situation. The suggestion does not contemplate elimination of individual grades but merely the desirability of shifting the emphasis from individual to team competition on a platoon or company basis. Appropriate prizes

presented at intervals during the training program to the unit maintaining the highest academic average would tend to stimulate the group rather than only a few highly qualified individuals. By this procedure individual incentives can be geared to the goals of the team--to achieve the highest academic team average. As a team member the poor student is more likely to receive cooperative support from his fellow students in the learning process. Such assistance could prove valuable in helping to break down certain blocks to learning such as attitudes of frustration and inferiority which sometimes occur in students faced with strong academic competition. Opportunity for teamwork in academic training may also help to condition the students for future teamwork in their military assignments.

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